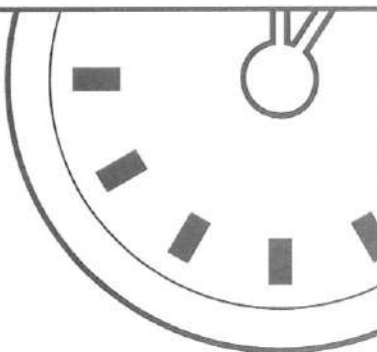


NAME: _____



MINUTE 1








1. Simplify: $12(2 + 7 + 1) =$

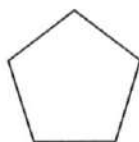
2. $\frac{3}{10} \cdot \frac{7}{10} =$

3. Circle all of the following equal to $\frac{2}{5}$: 0.4 $\frac{4}{100}$ 40% 

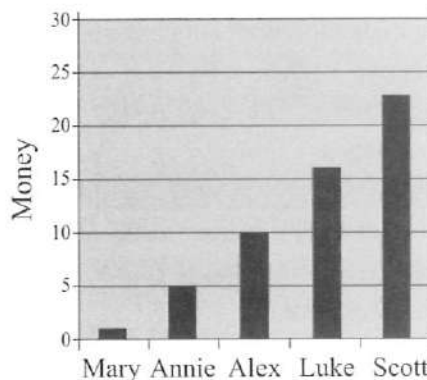
4. $10 \cdot \square = 5$

5. Cross out the three-dimensional shape.     

6. Each side of the regular pentagon is 5 centimeters. What is the perimeter? _____






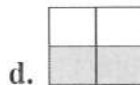
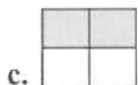
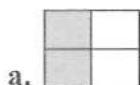
7. In the graph, Alex has _____ times as much money as Annie.



8. If $a = 5$ and $b = 4$, then $2a + b =$ _____.

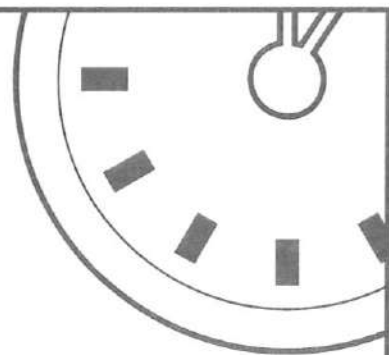
9. If $3x = 27$, then $x =$ _____.

10. Which of the following shapes comes next in the pattern?   





MINUTE 3



1. $2 \left[\frac{30}{5} \right] =$

2. $\left(\frac{1}{4} \right) \left(\frac{1}{3} \right) =$

3. Which of these represents the greatest amount?

Circle: 62%

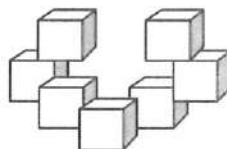
$\frac{1}{2}$

0.58



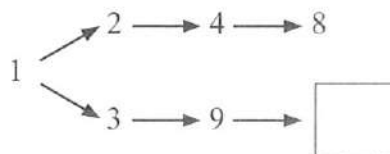
4. Use \bullet , $+$, $-$, or \div to complete the following equation. $2 \square 4 \square 1 = 9$

5. How many cubes are in this set? _____



6. The distance around the world at the equator is about 42,000 _____.
 a. meters b. kilometers c. centimeters d. millimeters

7. What number will complete the box? _____



For Problems 8–10, use $>$, $<$, or $=$.

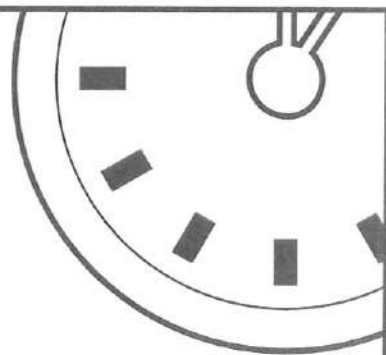
8. $50\% \underline{\hspace{1cm}} \frac{1}{2}$

9. $3^2 \underline{\hspace{1cm}} 2^3$

10. $0.\bar{5} \underline{\hspace{1cm}} 0.5$



MINUTE 5

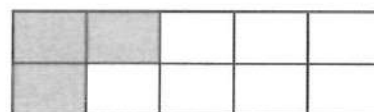


1. $0.5 \times 0.9 =$

2. $3 + 2 \cdot 4 + 5 =$

3. Which of these represents the least amount?

Circle: 0.35 $\frac{12}{50}$ 25%



4. Fill in the remaining prime numbers that are less than 20.

2			7		13		
---	--	--	---	--	----	--	--

5. Shade row 3 and column C.

4					
3					
2					
1					
	A	B	C	D	E

6. At what point does the row and column shaded in Problem 5 intersect? _____

7. In 1933, Wiley Post flew around the world in 7 days, 18 hours. Wiley's trip would best be described as flying around the _____ of the earth.

a. perimeter b. area c. volume d. diameter

8. Find the number that completes the following problem.

$$\begin{array}{r} 2 \square \\ \times 8 \\ \hline 192 \end{array}$$

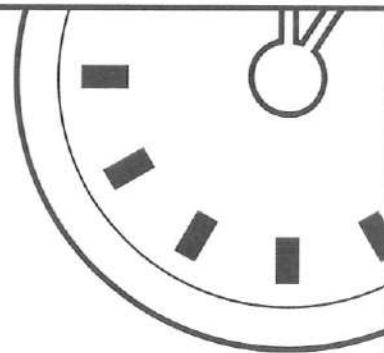
9. Find the number that completes the following problem.

$$(3 + 5) + 2 = 2(\square + 2)$$

10. If $3 \times 3 \times 3 \times 3 = 3^x$, then $x =$ _____.



MINUTE 7



1. $(0.6)^2 =$ _____

2. If $\left[\frac{2}{5}\right]^2 = \left[\frac{x}{25}\right]$, then $x =$ _____.

3. Circle the greatest number. Cross out the least number.

$$\frac{78}{100}$$


$$\frac{3}{4}$$

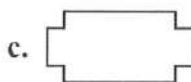
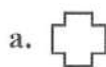


50%

4. Circle the numbers that are multiples of 7.

21 14 1 17 35

5. Circle the figure that is congruent to .



6. What is the perimeter of this figure? _____ 10 cm



7. Is the area of the figure in Problem 6 greater than or less than 80 cm^2 ? _____

8. Find the number that completes the following problem. $42 \square \times 6 = 2,538$

9. If $y = x + 5$ and $x = 3$, then $y =$ _____.

10. If $y = x + 5$ and $y = 11$, then $x =$ _____.



MINUTE 9

1. Use the numbers 3, 4, and 5 to complete the math sentence.

$$\square + \square \cdot \square = 19$$

2. Find the next number in the following sequence: $\frac{1}{12}, \frac{3}{12}, \frac{5}{12}, \underline{\hspace{2cm}}$.

3. What is 10% of 300? _____

4. How many minutes are in 3 hours and 10 minutes? _____

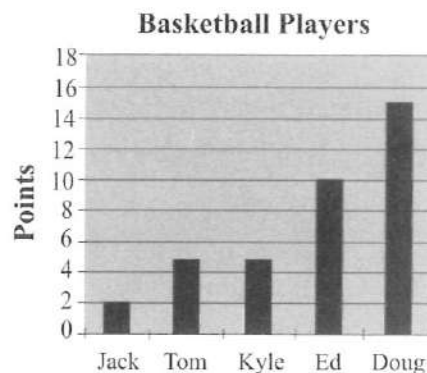
For Problems 5–7, use the graph to the right.

5. Which two players scored the same number of points? _____

6. Ed scored twice as many points as Tom.
Circle: True or False

7. How many total points were scored by the players? _____

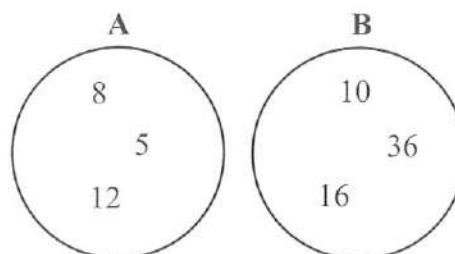
8. Annie puts \$10 into a vacation jar each week. How much will she have saved by the end of the year? _____



For Problems 9–10, use the diagram to the right.

9. Draw arrows to connect the multiples between circles A and B.

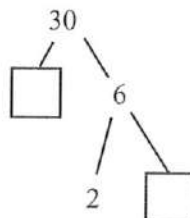
10. Circle the numbers in the diagrams that are evenly divisible by 4.





MINUTE 11

1. Complete the following factor tree.



2. $3(4 + 6) - 10 =$

For Problems 3–4, use the table to the right.

3. Which square does not touch one of the perimeter squares? _____

4. What is the combined area of rows 4 and 5? _____

5					
4					
3					
2					
1					
	A	B	C	D	E

For Problems 5–8, round to the underlined digit. (Note: “ \approx ” means “approximately”)

5. $2\text{7}.38 \approx$ _____

6. $\text{2}.99 \approx$ _____

7. $3.1\text{6}7 \approx$ _____

8. $1,001.\text{4}5 \approx$ _____

For Problems 9–10, use $a = 10$ and $b = 2$.

9. The product of a and b is _____.

10. Three more than twice b is _____.



MINUTE 13

1. $(9 - 3 \cdot 2)^2 =$

2. $205 \times 0.01 =$

3. Rewrite using bar notation: $0.912912... =$ _____

4. Which of the following is the remainder of 14 divided by 3?

a. 4

b. 1

c. 5

d. 2

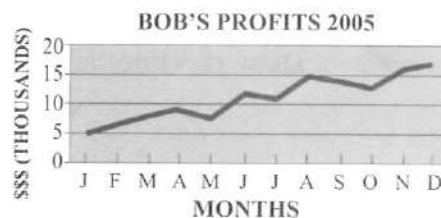
5. Fill in the remaining prime numbers between 20 and 50.

23	29			41		47
----	----	--	--	----	--	----

For Problems 6–7, use the graph to the right.

6. Would it be a good idea to invest in Bob's company?
Circle: Yes or No

7. In the graph, what does the "F" stand for?



For Problems 8–10, estimate to find the best answer.

8. 24 out of 99:

a. 10%

b. 75%

c. 25%

d. 50%

9. 12% of 400:

a. 15

b. 40

c. 60

d. 80

10. Possible weight of a 7th grader:

a. 50 kilograms

b. 50 grams

c. 50 milligrams



MINUTE 15

1. $\frac{6}{0.5} =$

2. What is the remainder of 21 divided by 4? _____

3. Is $\sqrt{47}$ closer to 6 or 7? _____

4. Place () symbols in this problem to make a true statement: $4 + 5 \cdot 2 = 18$

5. $1.435 \times 10^2 = 143.5$ Circle: True or False

6. If $5.48 = 5 + \frac{a}{10} + \frac{8}{b}$, then $a =$ _____ and $b =$ _____.

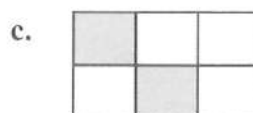
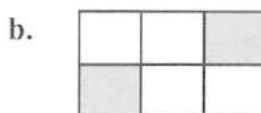
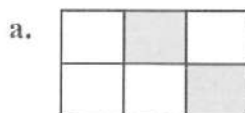
7. Half of a circle is a _____.
 a. square b. triangle c. diamond d. semicircle

8. Shade the figure with the fewest vertices. Cross out the figure with the most vertices.



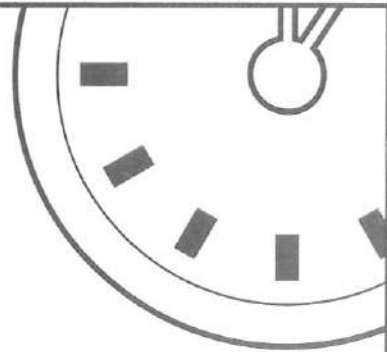
9. If it is 4 o'clock now, what time will it be in 9 hours? _____



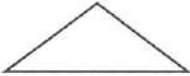


10. Which one of the following shapes comes next in the pattern?





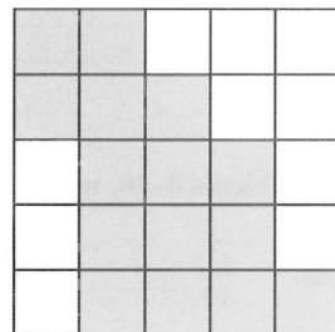
MINUTE 17



1. In a math problem, which of the following should be done first?
 a. parentheses () b. exponents c. multiplication d. addition
2. In a math problem, which of the following should be done last?
 a. parentheses () b. exponents c. multiplication d. addition
3. $4\frac{1}{4} + 3\frac{2}{4} =$
4. $576 \div 10 =$
5. Which of these shapes is congruent to  ?
 a.  b. 
 c.  d. 

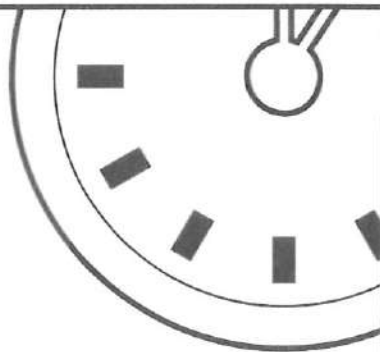
For Problems 6–8, use the grid to the right.

6. What is the area of the shaded region? _____
7. What fraction of the squares in the grid are shaded? _____
8. What percent of the boxes in the grid are shaded? _____
9. If $\frac{15}{25} = \frac{x}{100}$, then $x =$ _____.
10. If 60% of a shape is shaded, what percent is NOT shaded? _____





MINUTE 19



1. What decimal is the arrow pointing toward? _____

2. Round $\overline{3.28}$ to the nearest thousandth. _____

3. If Carol can read 45 pages in one hour, how many pages can she read in four hours?

4. $4 \cdot 5 - 3(4) =$

5. Shade 20% of the squares in this box.

6. If you double the sum of 5 and the number _____, you will get 16.

For Problems 7–10, evaluate if $x = 3$, $y = 4$, and $z = 5$.

7. $6(x + y) =$

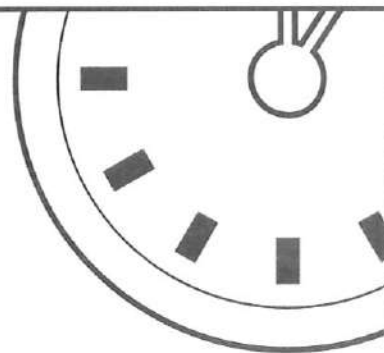
8. $\frac{2}{z - x} =$

9. $2x + 2y =$

10. $\frac{1}{2}yz =$



MINUTE 21



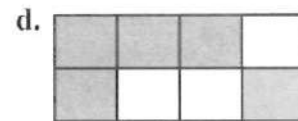
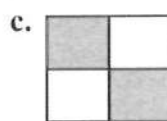
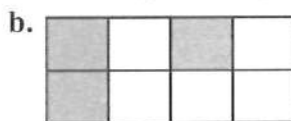
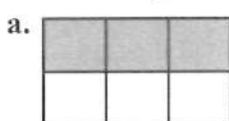
For Problems 1–3, circle *True* or *False*.

1. $25 \div 5 \cdot 3 = 15$ True or False

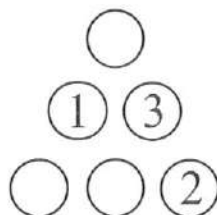
2. $2(10 - 7) - 4 = 9$ True or False

3. $16 + 24 \div 8 - 5 = 14$ True or False

4. Which two grids have the same percentage of squares shaded?



5. Use the numbers 4, 5, and 6 to fill in the circles so that each side equals 11.



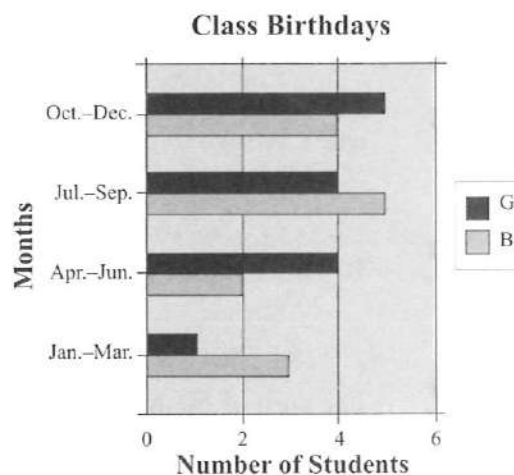
For Problems 6–9, use the graph to the right.

6. How many birthdays were in Jan.–Mar.? _____

7. Were there more boy or girl birthdays in Oct.–Dec.? _____

8. How many girls are in the class? _____

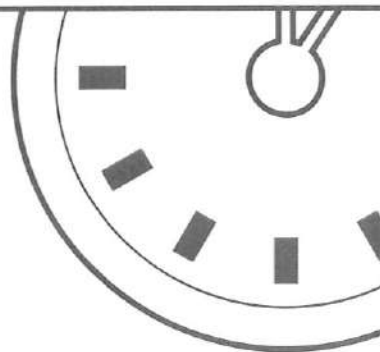
9. How many boys are in the class? _____



10. Write the next “A” in this pattern: AA◀◀A



MINUTE 23



For Problems 1–3, use the grid to the right.

2	4	5	0
1	5	3	9
1	2	9	2
4	7	3	6

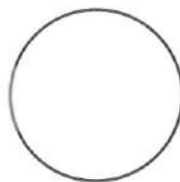
1. Circle three consecutive numbers that have a sum of 12.

2. Shade the prime numbers that are greater than 3.

3. Cross out the number that has 2 and 3 as factors.

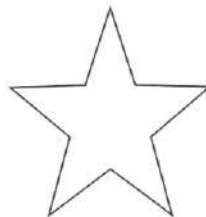
4. If $\frac{d}{7} = 8$, then $d =$ _____.

5. Draw a radius in the circle to the right.



6. If the radius of a circle is 6 cm, the diameter is _____ cm.

7. Draw a vertical line of symmetry on the star.



8. TON is to NOT as 356 is to _____.

a. 536

b. 635

c. 635

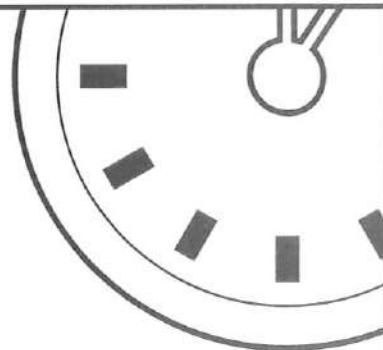
d. 653

9. If you double a number and add 1, you get 11. What is the number? _____

10. If $y = 2x - 4$ and $x = 12$, then $y =$ _____.



MINUTE 25



1. $10,000 = 10 \times 10 \times \square \times \square$

2. If $38,433 = 3.8433 \times 10m$, then $m =$ _____.

3. $1 + (2)(3)(4) =$

For Problems 4–6, use the grid to the right.

7	9	14	27
2	13	3	28
11	7	15	35
14	18	21	20

4. Shade the multiples of 7.

5. Circle the number in the 2nd row, 2nd column.

6. What is the sum of the numbers in the first column? _____

7. What is the total price of a \$5 book with a 10% sales tax? _____

8. If $b^2 = 25$, then $b =$ _____.

9. Circle the expression that shows 15 divided by a number.
 a. $15n$ b. $15 - n$ c. $15 + n$ d. $\frac{15}{n}$

10. RAT is to TAR as 246 is to _____.
 a. 624 b. 642 c. 324 d. 236



MINUTE 27

1. $\left[\frac{3}{5}\right]\left[\frac{2}{5}\right] =$

2. Reduce: $\frac{10}{40} =$

3. Circle the numerator and put a box around the denominator: $\frac{4}{15}$

4. There are two pictures on a wall. One is 12 in. \times 4 in. and one is 9 in. \times 6 in. Which one is larger? _____

5. To find the area of a shape, multiply the length by the width by the height.
Circle: True or False

6. How many quarters are in eight dollars? _____

7. Which of these could be the length of a bandage?
a. 3 inches b. 3 meters c. 3 millimeters d. 3 kilometers

For Problems 8–10, use $>$, $<$, or $=$.

8. 10% of 200 _____ 50% of 100

9. 1^{99} _____ $0.\overline{9}$

10. $\sqrt{51}$ _____ 7

NAME: _____

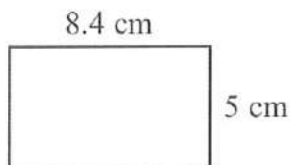


MINUTE 29

1. $0.35 + 0.4 + 0.1 =$

2. $0.2 \times 0.3 =$

3. Find the perimeter of the rectangle. _____



4. How many dots would the next shape in the sequence have? _____



5. $192 + 206 \approx$ _____. (Hint: " \approx " means "approximately")
 a. 500 b. 300 c. 200 d. 400

For Problems 6–10, match the words with their correct algebraic expression.

6. nine divided by n plus two

a. $4n$

7. n plus nine squared

b. $\frac{4}{n-9}$

8. four times the sum of nine plus n

c. $\frac{9}{n} + 2$

9. the product of four and n

d. $4(9 + n)$

10. four divided by the difference of n and nine

e. $n + 9^2$



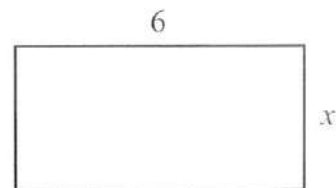
MINUTE 31

1. Fill in the missing numbers.

$$\begin{array}{r} 9.36 \\ +1.0\boxed{} \\ \hline \boxed{}0.41 \end{array}$$

2. $21 \cdot \frac{1}{3} =$

3. Find x if the perimeter of this rectangle is 20. _____

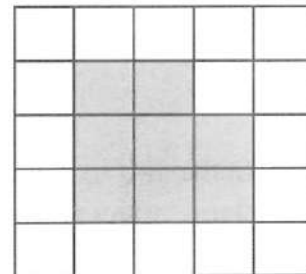


For Problems 4–6, use the grid to the right.

4. What is the area of the shaded region? _____

5. What is the perimeter of the shaded region? _____

6. What percentage of the boxes are shaded? _____



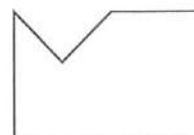
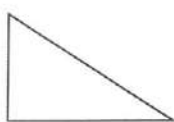
7. Circle the numbers that make $\frac{n}{5} \leq 3$ a true statement:

5 10 15 20

8. If the time is 4:15, what time will it be in nine hours? _____

9. If you rearranged the numbers in 1,996, what is the largest number you can make?

10. Shade the shape with the most right angles.





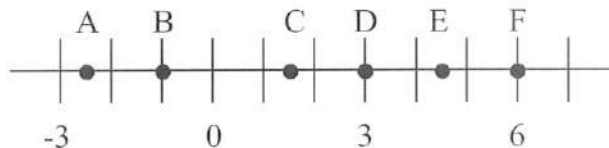
MINUTE 33

1. Complete the times table to the right.

×	7	8
5		40
6	42	

2. Seven quarters, three dimes, and one nickel = \$ _____.
3. If $a + 12 = 31$, then $a =$ _____.
4. The sum of two identical numbers is 16. What is the number? _____

For Problems 5–6, use the number line to the right.



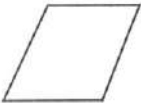

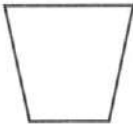

5. Which letters represent fractions?

6. Which letter is located directly between 3 and 6? _____

For Problems 7–10, cross out the item that does NOT belong in each list.

7. 2 6 10 11

8. 3 7 12 13

9.    

10. 65% $\frac{2}{3}$  $0.\bar{6}$



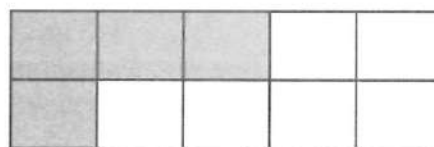
MINUTE 35

1.
$$\begin{array}{r} \$ 40.75 \\ - 4.57 \\ \hline \end{array}$$

2. If $15 \times a = 135$, then $a = \underline{\hspace{2cm}}$.

For Problems 3–4, use the grid at the right.

3. What fraction of the rectangle is shaded?
(express in lowest terms) $\underline{\hspace{2cm}}$



4. What fraction of the rectangle is NOT shaded?
(express in lowest terms) $\underline{\hspace{2cm}}$

5. Which one of the following line segments is the longest?
a. \overline{AB} b. \overline{BC} c. \overline{AC}



6. Using the number line given in Problem 5, if $\overline{AC} = 12m$ and $\overline{BC} = 7m$,
then $\overline{AB} = \underline{\hspace{2cm}}$.

For Problems 7–10, cross out the item that does NOT belong in each list.

7. 5 7 11 14

8. 5 9 27 63

9. $\frac{5}{5}$ 1^9 1% $\sqrt{1}$

10.

B	L	A	C	K
---	---	---	---	---

B	R	O	W	N
---	---	---	---	---

G	R	E	E	N
---	---	---	---	---

R	E	D			
---	---	---	--	--	--



MINUTE 37

1. If $\frac{1}{3} = \frac{x}{6}$, then $x =$ _____.

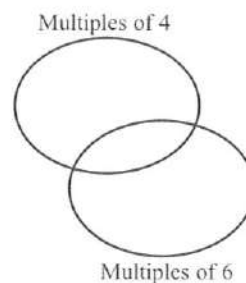
2. $\frac{1}{3} + \frac{3}{6} =$

3. $0.46 + 0.05 =$

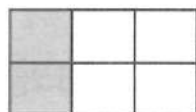
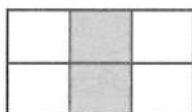
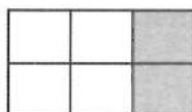
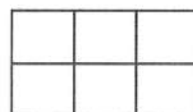
4. Fill in the missing number: $5 \cdot \square = 0.25$

5. Which of these numbers represents seventeen thousandths?
 a. 0.0017 b. 0.17 c. 0.017 d. 0.00017

6. Put the numbers {4, 12, 16, 18, 20} into the Venn diagram.
 (Hint: One of the numbers will go in both rings.)



7. Shade the boxes in the 4th shape to create the next shape in the sequence.

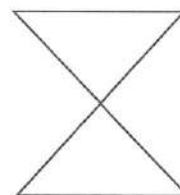
1st2nd3rd4th

8. Find the two prime numbers that complete the equation. $\square + \square = 12$

Prime

Prime

9. Draw the horizontal and vertical lines of symmetry in this figure:



10. $2\frac{1}{4}$ km = _____ meters

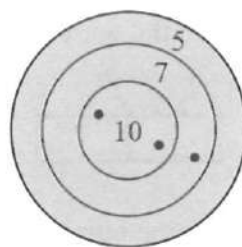


MINUTE 39

1. In the number 38.7165, what number is in the hundredths position? _____
2. Round the number in Problem 1 to the nearest thousandth. _____
3. The least common denominator of $\frac{1}{4}$ and $\frac{1}{6}$ is _____.

For Problems 4–5, use the picture to the right.

4. If the black dots represent Beth's three "hits," what is her score on the dartboard? _____
5. If Beth "hits" a 5 on her next throw, what will her total be? _____
6. Find the next letter and number in the series: Z1, Y2, X3, W4, _____



For Problems 7–10, match the words with their correct algebraic expression.

- | | |
|------------------------------------|------------------|
| 7. nine times n plus 1 | a. $9(n + 1)$ |
| 8. the square root of n | b. $\frac{n}{9}$ |
| 9. nine times the sum of n and 1 | c. $9n + 1$ |
| 10. the quotient of n and 9 | d. \sqrt{n} |



MINUTE 41

1. Order the decimals {3.0, 0.3, 0.33, 3.3} in ascending order (least to greatest).

2. Fill in the remaining factors of 30.

1		3	5		10		30
---	--	---	---	--	----	--	----

For Problems 3–5, use the chart to the right.

3. More people exercised on _____ than any other day.

4. Fewer people exercised on _____ than any other day.

5. On Saturday, _____ times as many people exercised than on Friday.

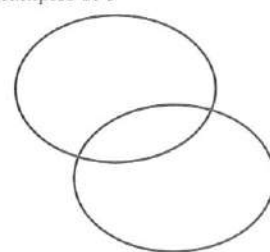
Exercise Day	Tally (hundreds)
M	
T	
W	
TH	
F	
S	
SU	

For Problems 6–7, use the Venn diagram to the right.

6. Put the numbers 5, 14, 20, 21, 30, and 35 into the Venn diagram.

7. Which number from Problem 6 belongs in both circles? _____

Multiples of 5



Multiples of 7

For Problems 8–10, evaluate the expressions if $a = 4$, $b = 6$, and $c = 10$.

8. $\frac{5b}{c} =$

9. $\frac{1}{2}ab =$

10. $a(b + c) =$



MINUTE 43

1. Shade 15% of the boxes.
(Hint: 5% are already shaded for you)

2. $16.29 - 0.3 =$

3. $2 + 0.2 + 0.02 + 0.002 =$

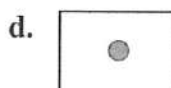
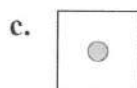
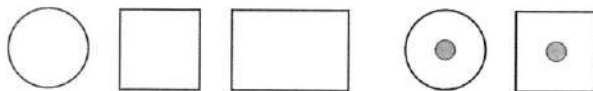
4. There are 20 nickels in a dollar. How many nickels are in 25 dollars? _____

For Problems 5–8, use the frequency table to the right.

5. What is the mode? _____
6. The mean of the scores is 80. If Sarah gets a 90, the mean will _____.
 a. go down b. stay the same
 c. go up a lot d. go up a little
7. The median (score in the middle) is _____.
8. How many people took the test? _____

Score	Tally
95	
90	
85	
80	
75	
70	
65	
Below 60	

9. Which of the following is the next shape in the pattern?



10. Put a decimal point in the number 26583 so that the 5 has a value of $\frac{5}{100}$. _____



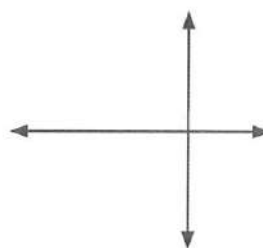
MINUTE 45

1.
$$\begin{array}{r} 10.38 \\ + 1.26 \\ \hline \end{array}$$

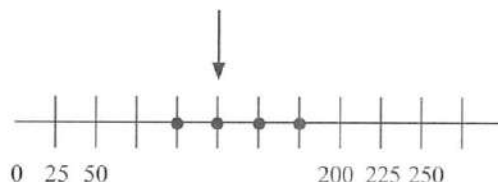
2.
$$\begin{array}{r} 3.4 \\ \times 0.2 \\ \hline \end{array}$$

3. $0.2 + 0.3 + 0.5 + 0.2 =$

4. These lines are _____.
Circle: parallel or perpendicular



5. What number is the arrow pointing toward in the number line to the right? _____



6. Circle the number that is different from the others.

226 357 486 451 842

For Problems 7–10, circle *True* or *False* if $a = 3$, $b = 5$, and $c = 11$.

7. a , b , and c are prime numbers True or False

8. $ab > bc$ True or False

9. $a^b = b^a$ True or False

10. $a + b + c$ is a prime number True or False



MINUTE 47

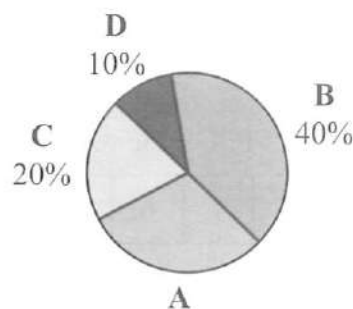
1. 132 minutes = _____ hour(s) _____ minutes.

For Problems 2–4, use the circle graph to the right.

2. What percent must category A be equal to? _____

3. Which two categories make up 50% of the graph?
_____ and _____.

4. If these were the grades on a recent test, then the majority of the class _____. Circle: Passed or Failed



5. $\left[\frac{1}{3}\right]\left[\frac{1}{4}\right] + \left[\frac{2}{3}\right]\left[\frac{3}{4}\right] =$

For Problems 6–10, match each word with its correct definition.

- | | |
|------------------|---|
| 6. perpendicular | a. A number that can only be divided by 1 and itself. |
| 7. parallel | b. Two lines that never intersect and are spaced equally apart. |
| 8. diameter | c. Two lines that intersect at right angles. |
| 9. prime | d. The distance across a circle through its center. |
| 10. composite | e. A number having other factors besides 1 and itself. |



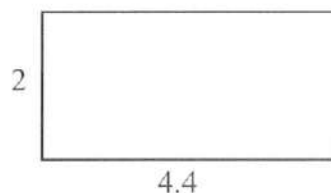
MINUTE 49

1. $8 \overline{)32.16} =$

2. Fill in the square to complete the equation. $\square \cdot \frac{1}{4} = \frac{3}{16}$

3. 15 seconds = _____ minutes. Circle: 4 0.5 2 0.25

4. What is the perimeter of this rectangle? _____

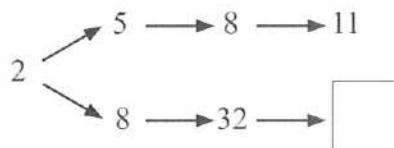


5. What is the area of the rectangle in Problem 4? _____

6. Do all rows and columns add up to the same number in this grid?
Circle: Yes or No

3	8	4
9	1	5
2	7	6

7. Fill in the missing number in the box.



For Problems 8–10, estimate to find the best answer.

8. 26 out of 99 =
a. 10% b. 40% c. 75% d. 25%

9. 11% of 80 =
a. 8 b. 0.8 c. 20 d. 79

10. $\frac{29}{50} =$
a. 29% b. 60% c. 14% d. 200%



MINUTE 51

Rules of Integers

$$(-)(-) = +$$

$$(-)(+) = -$$

$$(-) \div (-) = +$$

$$(-) \div (+) = -$$

$$(-) + (-) = -$$

1. $-7 \cdot -8 =$

2. $-6 \cdot 7 =$

3. According to the chart, a negative plus a negative makes a _____.

4. $(-5)^2 =$

5. If $\frac{12}{n} = 24$, then $n =$ _____.

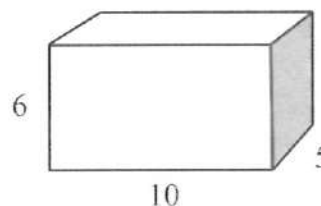
6. Use the function rule above the chart to fill in the empty boxes.

$$y = 2x - 3$$

x	y
4	
5	7
10	

7. $3.426 \times 10^3 =$

8. What is the volume of the box? _____



9. A bag holds seven red marbles and three blue marbles. If Jill reaches into the bag and pulls out one marble, what is the probability that the marble will be red? _____

10. If all 10 marbles described in Problem 9 were still in the bag, what is the probability that Jill would pull out a blue marble? _____



MINUTE 53

1. If $8n = -40$, then $n =$ _____.

2. If $\frac{n}{4} = 12$, then $n =$ _____.

For Problems 3–5, use the chart to the right.

3. $y_2 - y_1 =$

y_1	y_2	x_1	x_2
6	12	3	5

4. $x_2 - x_1 =$

5. $\frac{y_2 - y_1}{x_2 - x_1} =$

For Problems 6–10, use the coordinate grid to the right.

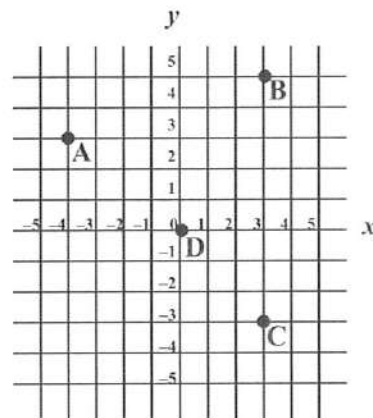
6. Which letter is at the origin (0, 0) of the grid? _____

7. Which letter(s) are located three units to the right of the origin? _____

8. Which letters are located above the origin? _____

9. To go from point A to point B you would have to go _____.
a. NE b. SE c. SW d. NW

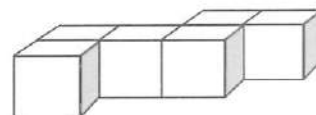
10. Is there a letter located four units left of the origin and down two units?
Circle: Yes or No



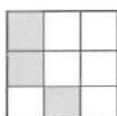


MINUTE 55

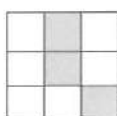
1. How many blocks are in the shape to the right? _____



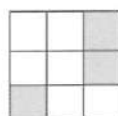
2. Shade the squares in the 4th shape to complete the sequence.



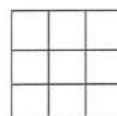
1st



2nd



3rd



4th

3. Shade the octagon.



a.



b.



c.



d.

4. Shade the trapezoid.



a.



b.



c.



d.

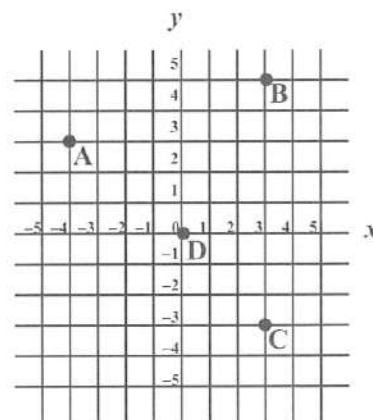
For Problems 5–8, use the coordinate grid to the right.

5. Which letter is at the origin (0, 0) of the grid? _____

6. The coordinates of point B are (3, 5). What are the coordinates of point C? _____

7. What are the coordinates of point A? _____

8. To go from point C to point A, you have to go _____.
a. NE b. SE c. SW d. NW



For Problems 9–10, use $>$, $<$, or $=$ to complete.

9. $(-8)(-5)$ _____ $(9)(-8)$

10. $\frac{(-6)^2}{4}$ _____ $\sqrt{(-4)(-25)}$



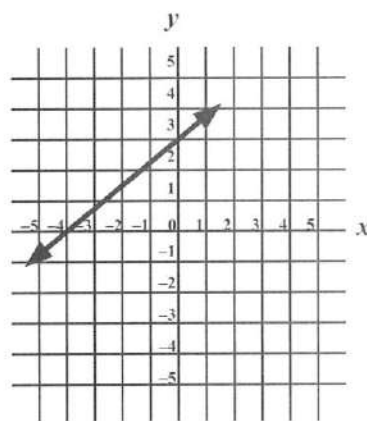
MINUTE 57

1. $2(-5 + 3 \cdot 4) =$

2. If $3n - 2 = 10$, then $n =$ _____.

3. If $40 = 2^x \cdot 5$, then $x =$ _____.

For Problems 4–6, use the coordinate grid to the right.



4. As you move from left to right, the line on the grid:
Circle: goes up goes down is level

5. Where does the line cross the y-axis? _____

6. Where does the line cross the x-axis? _____

7. Find the next letter and number in the series: A3, D6, G9, _____.

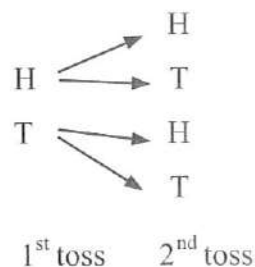
8. Look at the chart and complete the function rule.
 $y = \underline{\hspace{1cm}} x + 2$

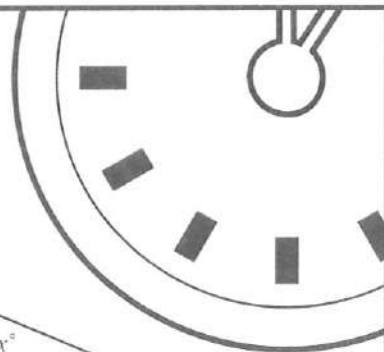
x	y
1	4
2	6
3	8

9. Using the chart in Problem 8, if $x = 10$, then $y =$ _____.

10. Ali flips a coin two times. The possible results are shown to the right. List the four possible outcomes for two flips. Two have been done for you.

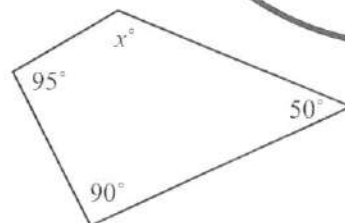
HH, HT, _____, _____.





MINUTE 59

1. If the angles of a four-sided shape total 360° , then angle x is _____.



2. Circle the numbers that are greater than 2, but less than 2.4.
2.03 2.41 1.99 2.22 3.1

3. The only even prime number is _____.

4. 16 weeks, 2 days is the same as _____.

a. 105 days b. 126 days c. 114 days d. 88 days

5. Leah is dealing cards. She deals a king, then a queen, then a king. The next card to be dealt will be:

a. queen b. king c. can't tell d. ace

6. What is the pattern in this sequence? _____



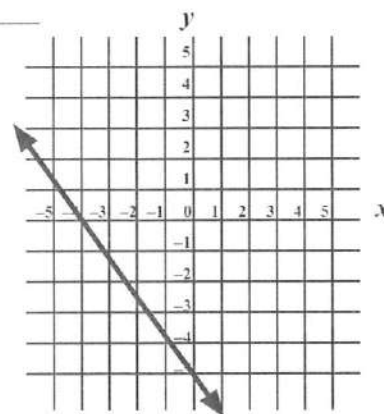
7. What is the lowest composite number with the factors of 2, 3, and 4? _____

8. Friends were sharing a bag of candy. Mike ate one-fourth of the candy. Shelby ate one-eighth of the candy originally in the bag. Then Shelby's dog ate one-half of the candy originally in the bag. How much candy remains? _____

For Problems 9–10, use the graph to the right.

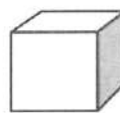
9. Where does the line cross the y-axis (y-intercept)? _____

10. What is the x-intercept? _____





MINUTE 61



1. If the area of one side of this cube is 25cm^2 , what is the area of the whole surface of the cube? _____

2. Fill in the missing number: $3 \cdot \square = 1.8$

3. What is the sum of the first four composite numbers in the list below? _____

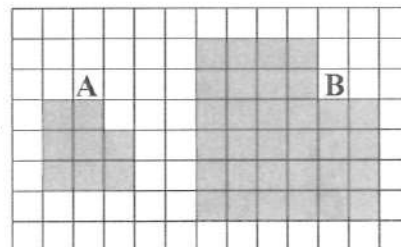
1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

4. $-5 + -7 + 10 + 10 =$

5. If $-3(4 + a) = -15$, then $a =$ _____.

6. The length of each side of shape A has been doubled to create shape B. This means that the area of shape B is _____.

- a. doubled b. three times bigger
c. four times bigger d. six times bigger

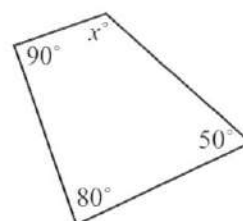


7. A number is between 20 and 30 and is three times the sum of its digits. What is the number? _____

8. Fill in the blanks using the numbers 7, 6, 2, 9, and 8 to make the smallest possible number.
_____. _____ . _____ . _____ . _____

9. Find the next letter and number in the series: A1, B4, C9, D16, _____.

10. In the quadrilateral to the right, angle x equals _____.

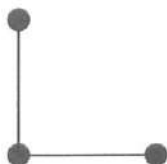




MINUTE 63

1. Which shape below shows an acute angle? _____

a.



b.



c.



2. An unknown number is half the product of 4 and 12. The number is _____.

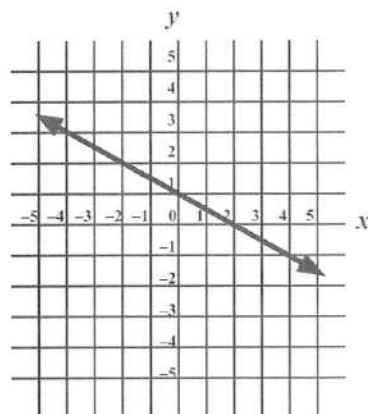
3. Jim's father is older than 40 but younger than 50. If you divide his age by 2, 4, 5, 8, or 10, there will be a remainder of 1. How old is Jim's father? _____

For Problems 4–6, use the coordinate grid to the right.

4. What is the y-intercept? _____

5. What is the x-intercept? _____

6. Does the line slope up or down? _____



7. Find the dimensions of this rectangle.

Length = _____.

Width = _____.

Perimeter = 20 m

Area = 21 m²

8. If pens cost 15 cents, how many can you buy with \$3.00? _____

9. If one side of a cube has an area of 10 m², what is the surface area of the entire cube? _____

10. $4 + 3 \cdot (-2) =$



MINUTE 65

1. Complete the times table.

	\times	7	8
-4			-32
-6		-42	

2. Write an equation that represents this statement: two times a number plus 1 is 11.

3. What number would solve the equation in Problem 2? _____

For Problems 4–6, cross out the item that does NOT belong on the list.

4. 5 9 16 100

5. $\frac{4}{8}$ $\frac{9}{18}$ $\frac{14}{28}$ $\frac{7}{12}$

6. 

For Problems 7–10, match the problems with their correct answers.

7. $13a = -26$ a. $a = 1$

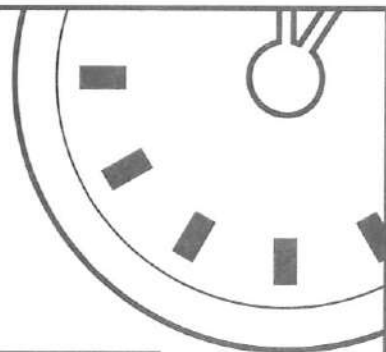
8. $\frac{a}{4} = -5$ b. $a = -2$

9. $a - 11 = -10$ c. $a = -20$

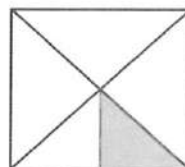
10. $a + 3 = -14$ d. $a = -17$



MINUTE 67



1. What fraction of the total square is shaded? _____



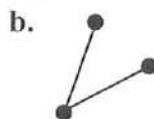
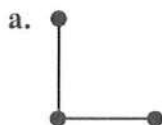
2. $\frac{1}{4} \cdot 24 =$

3. Complete this division table.

\div	12	18
-2		-9
-3	-4	

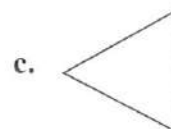
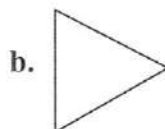
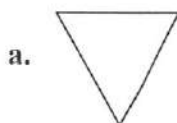
4. 20% of 70 =

5. Which shape below shows a right angle?



6. $2^3 - 5 =$

7. A is to V as is to:

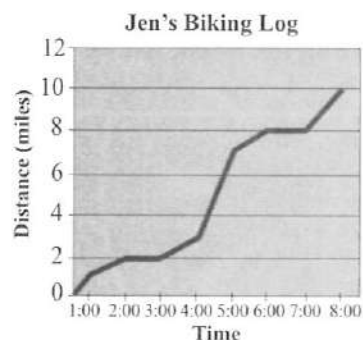


For Problems 8–10, use the graph to the right.

8. At what time did Jen finish her trip? _____

9. How many miles did Jen ride? _____

10. At what two times did Jen appear to take a break?
_____ and _____.





MINUTE 69

1. Complete this addition table.

	+	-5	-6
3		-2	
8			2

2. Circle the numbers that can be divided evenly by 3, 4, and 5.
12 15 24 30 60
3. How many times bigger is the underlined 5 than the other 5 in the number 45,245?
a. 1,000 times b. 100 times c. 10 times
4. Circle the objects below that are longer than 1 meter.
calculator mouse bed basketball dining table
5. Circle the objects that are shorter than 5 centimeters.
paper clip book writing paper pencil eraser bottle cap
6. What is the volume of a box that is 6 in. \times 8 in. \times $\frac{1}{2}$ in.? _____

For Problems 7–10, match each word with its correct definition.

- | | |
|------------------------|---|
| 7. consecutive numbers | a. when numbers are in order from least to greatest |
| 8. coordinates | b. numbers used to locate points on a grid |
| 9. descending order | c. numbers that follow in order and are not interrupted |
| 10. ascending order | d. when numbers are in order from greatest to least |



MINUTE 21

For Problems 1–3, use the stem-leaf plot to the right.

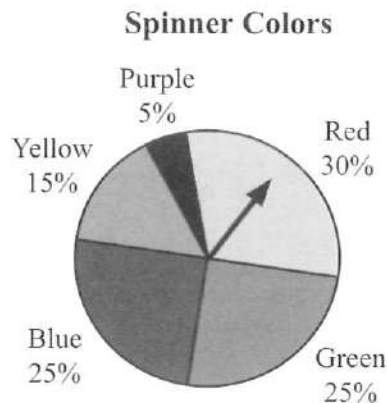
1. What number is the mode of the plot? _____
2. Does the number 64 appear on the plot? _____
3. How many numbers are represented by the plot? _____

1	1 2 2
2	2 6 8
3	0 1 2
5	5 5 5 6
6	1 3 5
7	2 3
9	4 6

KEY
6|1 represents 61

For Problems 4–7, use the spinner diagram to the right.

4. On which color is the spinner most likely to stop? _____
5. Is there a better chance of spinning Blue or Yellow? _____
6. If the spinner is spun 100 times, what is the average number of times it would stop on Red? _____
7. The spinner will land on Blue or Green about half the time on average.
Circle: True or False



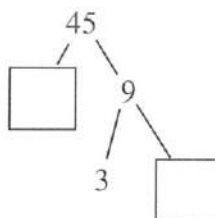
8. $-3 + \frac{-12}{-2} =$ _____
9. Look at the chart to the right and write the function rule.
 $y =$ _____
10. Using the chart in Problem 9, if $x = -3$, then $y =$ _____.

x	y
1	3
2	6
3	9



MINUTE 73

1. Complete this factor tree.



2. Use \cdot , $+$, $-$, or \div to complete. $3 \square 12 \square 4 = 6$

3. If $y + 1.7 = 1$, then $y =$ _____.

4. If $d = 3$, does $d + d + d = 3d$? Circle: Yes or No

5. Complete this multiplication table.

\times	-5	-6
3	-15	
8		-48

6. If $\pi = 3.14$, then $10\pi =$ _____.

For Problems 7–10, match each expression with an equivalent expression.

7. $a \cdot a \cdot a$

a. $\frac{a}{3}$

8. $a + a + a$

b. $-a$

9. $a \div 3$

c. $3a$

10. $a - a - a$

d. a^3



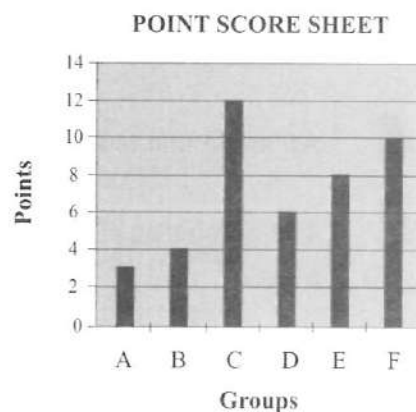
MINUTE 75

1. Write in the simplest form: $\frac{16}{20} =$
2. Estimate: $42 \times 58 \approx$ _____. (Hint: " \approx " means "approximately")
3. What number times 7 equals negative 56? _____
4. How many dimes are in \$6.00? _____
5. Complete this addition table.

+	-4	-5
-6	-10	
-7		-12
6. How many cookies are in 3.5 dozen? _____
7. The distance around a circle is sometimes referred to as _____.
 a. diameter b. radius c. circumference d. pi

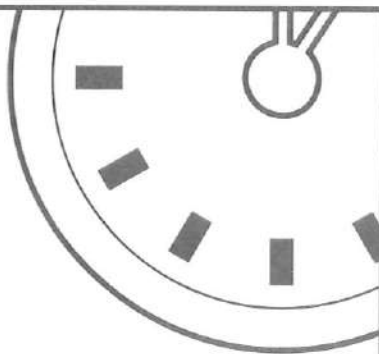
For Problems 8–10, use the graph to the right.

8. According to the graph, group _____ has twice as many points as group D and _____ times as many points as group B.
9. Group _____ has half as many points as group E.
10. Altogether, groups A, B, and C have a total of _____ points.



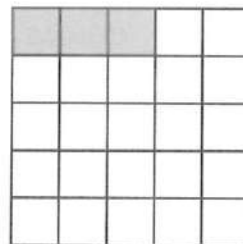


MINUTE 77



For Problems 1–2, use the grid to the right.

1. If two more of the squares were shaded, what total percent would be shaded? _____
2. How many small cubes placed on top of the grid, fitting exactly on the squares, would it take to make a large cube? _____



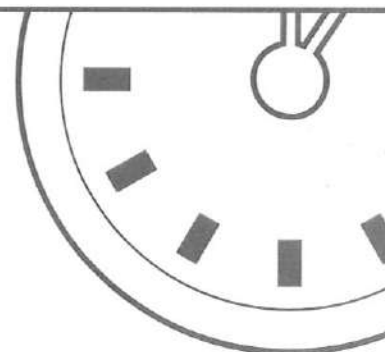
3. $5^2 - 33 =$ _____
4. How many thirds are in 7? _____
5. What is the perimeter of a 5 in. \times 9 in. picture frame? _____
6. Would a 40 in.² picture fill a 5 in. \times 9 in. picture frame? Circle: Yes or No

For Problems 7–10, match each statement with its correct algebraic expression.

- | | |
|-------------------------------------|--------------------|
| 7. three more than a number squared | a. $\frac{1}{3}n$ |
| 8. three less than twice a number | b. $\frac{n^3}{3}$ |
| 9. a number cubed divided by 3 | c. $n^2 + 3$ |
| 10. one-third of a number | d. $2n - 3$ |

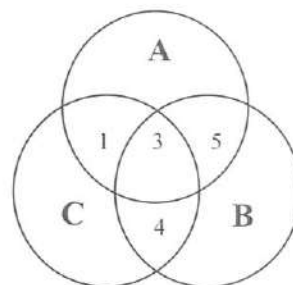


MINUTE 79



For Problems 1–3, use the Venn diagram to the right.

1. What number is in all three circles? _____
2. Which number(s) are in both circles A and B? _____
3. How many different numbers are in circles A and C? _____
4. What is the interest for one year at 10% on \$2,500? _____

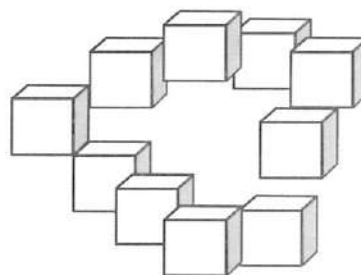


5. Complete this subtraction table.

	-4	-5
-6	2	
7		-12

For Problems 6–7, use the picture to the right.

6. How many cubes are in the picture? _____
7. If each cube has six faces, how many total faces are in this picture? _____



For Problems 8–10, estimate to find the best answer.

8. $82 \times 41 =$
 a. 1,200 b. 120 c. 1,600 d. 3,200
9. $148 \div 5 =$
 a. 50 b. 30 c. 75 d. 25
10. 48% of 240 =
 a. 120 b. 250 c. 24 d. 160



MINUTE 81

1. $0.25 + 50\% \frac{1}{10} =$

2. Using the numbers 2, 6, 5, 1, and 8, fill in the lines below to create the greatest number possible.

For Problems 3–5, use $>$, $<$, or $=$.

3. $\sqrt{36}$ _____ -8

4. $0.4\bar{6}$ _____ 0.48

5. Obtuse Angle _____ Acute Angle

6. The letter **M** has two _____ lines. Circle: Parallel or Perpendicular

For Problems 7–10, fill in the boxes to complete the correct math equations.

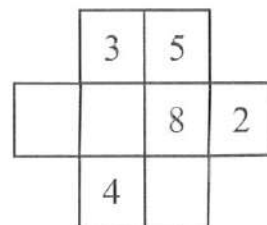
7						
÷						
-5		8				
=		-4				
		•				
9	-9	÷	2	•	6	=
		=				
		10		+	-7	=



MINUTE 83

1. If a snail moves six feet in 15 minutes, how far will it go in two hours? _____

2. Use the digits 1, 6, and 7 to fill in the remaining squares so that no two consecutive numbers are beside each other vertically, horizontally, or diagonally.



For Problems 3–6, use the Venn diagram to the right.

3. In a recent television survey, only two people preferred all three brands (A, B, C).

Circle: True or False

4. Eight people preferred brands A and B.

Circle: True or False

5. Seven people preferred brand A only.

Circle: True or False

6. Five people preferred brands C and B, but not brand A.

Circle: True or False

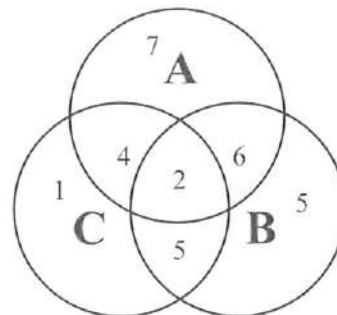
7. $20\% + \frac{2}{5} + 0.08 =$

8. $\sqrt{2^2 + 5} =$

9. $\sqrt{4} \cdot \sqrt{9} =$

10. I am an even number less than 30 but more than 20. I am also a multiple of 3. What number am I? _____

Television Survey





MINUTE 85

1. The letter **H** has _____ lines.
a. parallel b. perpendicular c. both parallel and perpendicular
2. There are four aces in a deck of 52 cards. What are the chances of drawing an ace from a deck on one draw? _____
3. Write 7.25 as a fraction. _____
4. $5 + 5 \cdot 5 - 5 \div 5 =$ _____
5. Ellen likes to draw pentagons and hexagons. Her paper has a total of 39 sides. If there are four hexagons, how many pentagons are there? _____
6. If $d - 3.6 = 7.4$, then $d =$ _____.
7. To turn 168 hours into days, you should _____.
a. divide by 60 b. multiply by 24 c. divide by 24 d. multiply by 7

For Problems 8–10, use the chart to the right.

8. 3 gal. = _____ qt.
9. 6 pt. = _____ qt.
10. 2 qt. = _____ oz.

1 gal. = 4 qt.

1 qt. = 2 pt.

1 pt. = 16 oz



MINUTE 87

For Problems 1–3, use the grid to the right.

1. What is the sum of column A? _____

2. What is the product of column B? _____

3. What is the product of column C? _____

A	B	C
-2	-1	10
5	-4	0
-8	-6	-9

4. $75\% + \frac{1}{10} + 0.02 =$

5. $\sqrt{6^2 + 8^2} =$

6. Which of the following shapes would be next in the pattern?



b.



d.

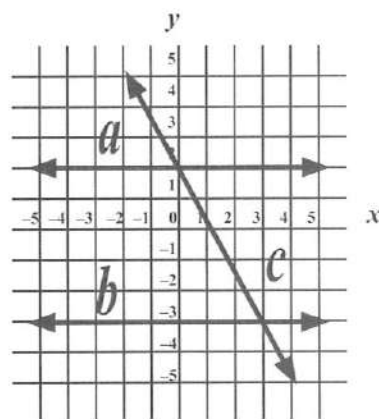
For Problems 7–10, use the coordinate grid to the right.

7. Lines a and b are _____.
Circle: parallel or perpendicular

8. Lines a and c intersect at (_____, _____).

9. Lines b and c intersect in Quadrant _____.

10. Line b has a y-intercept of _____.





MINUTE 89

1. Write $3 \cdot 3 \cdot 3 \cdot 3 \cdot 5 \cdot 5$ using exponents: _____

2. Which of the following is equal to $2^3 \cdot 2^2$?

- a. 2^6 b. 2^5 c. 2^1 d. 2^4

3. $2(4 + 1)^2 =$

4. $5(0.7 + 0.4) =$

5. Which value of n will make $4n > 22$ true?

- a. 4 b. 5 c. 6 d. -5

6. If $|-5| = 5$, then $|-12| =$ _____.

7. If $y = x^2$ and $x = 4$, then $y =$ _____.

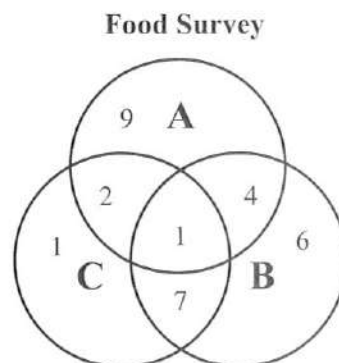
8. Which of the following is the greatest number?

- a. 4^2 b. 2^4 c. $\frac{50}{2}$ d. three dozens

For Problems 9–10, use the Venn diagram to the right.

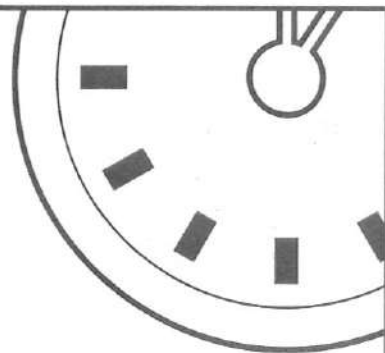
9. In a recent food survey, how many people preferred all three brands? _____

10. Seven people preferred brands _____ and _____.

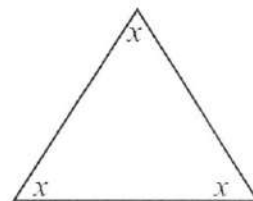




MINUTE 91



1. Which one of the following problems is incorrect?
a. $-2 + -3 = -5$ b. $-2 \cdot -3 = -6$ c. $-8 \div -2 = 4$ d. $-4 - (-6) = 2$
2. $3|-5| =$
3. Reduce: $\frac{20}{50} =$
4. What percent is $\frac{20}{50}$? _____
5. Write as a decimal: $\frac{20}{50} =$
6. Which is greater, the mean or median of the numbers 1, 3, and 8? _____
7. Write as an improper fraction: $3\frac{2}{7} =$
8. If $\frac{3}{4} = \frac{x}{36}$, then $x =$ _____.
9. Find three prime numbers whose product is 30. _____, _____, _____.
10. If all three angles of this triangle are equal, then $x =$ _____.





MINUTE 93

For Problems 1–3, use the chart to the right.

1. $y_2 - y_1 =$

x_1	x_2	y_1	y_2
2	-1	-3	6

2. $x_2 - x_1 =$

3. Find the slope of the line that contains the points from Problems 1 and 2.

4. Put these in order from least to greatest: $-5, -7, |-5|, 0$. _____

5. $4^3 \cdot 4^8 =$

6. If two angles in a triangle are 60° and 100° , is the third angle acute, obtuse, or right? _____

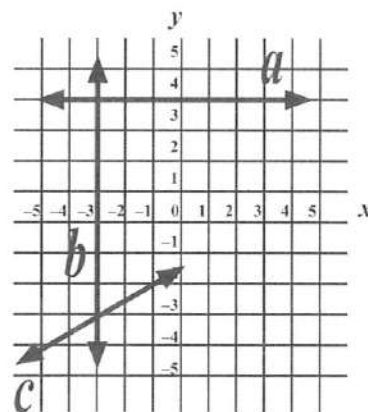
7. $3(14 + 3 \cdot 12) =$

For Problems 8–10, use the coordinate grid to the right.

8. At what coordinates do the lines a and b intersect? _____

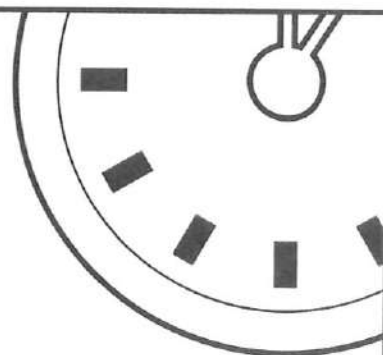
9. Lines b and c intersect in Quadrant _____.

10. Will line c intersect line a ? Circle: Yes or No





MINUTE 95



1. If Jenny's bill for her dinner is \$32, how much should she leave for a 20% tip? _____
2. $\frac{1}{4} + 30\% + 0.02 =$
3. $\left[\frac{3}{9}\right]\left[-\frac{6}{3}\right] =$
4. $(-4) \cdot (-6) =$ _____ $(-7) \cdot (8) =$ _____ $(4) \cdot (-9) =$ _____
5. $\sqrt{\sqrt{16}} =$

For Problems 6–7, use the square to the right.

6. If the length of a side of the square is a units, what is its perimeter? _____
7. What is the area of the square if $a = 7$ units? _____
8. If $x = 2$, then $2x^2 - x =$ _____.

a



9. Use $y = 3x + 5$ to complete this chart.

x	y
-2	
5	
-4	

10. What four numbers are shown by this stem-leaf plot? _____, _____, _____, _____

1	3
2	5
3	6 8

KEY
1 5 = 15

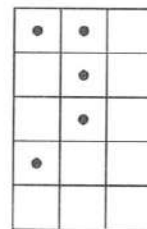


MINUTE 97

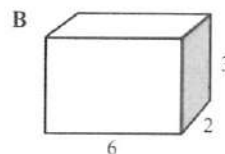
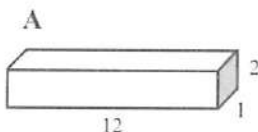
1. Circle the fraction that is greater than $\frac{3}{14}$.
 a. $\frac{3}{20}$ b. $\frac{3}{15}$ c. $\frac{1}{4}$ d. $\frac{1}{7}$
2. Circle the measurement that is greater than 1 yard.
 a. 1 foot b. 13 inches c. 5 feet d. 2 feet
3. Circle the amount that is greater than 0.06.
 a. 0.061 b. 0.006 c. $\frac{1}{1,000}$ d. 4%
4. Circle the shape with more than nine sides.
 a. pentagon b. hexagon c. octagon d. decagon

For Problems 5–6, use the figure to the right.

5. What percent of the squares have a black dot in them? _____
6. How many more black dots should be added so that $\frac{2}{3}$ of the squares would be filled? _____



7. A garden hose will be filling these boxes with water. Which box will take longer to fill? _____



8. Fill in the missing numbers to complete the pattern.

1.5	3	6			48
-----	---	---	--	--	----

9. $2 \square \times 8 = 208$

10. $\sqrt{\sqrt{81}} =$



MINUTE 99

For Problems 1–3, use the chart to the right.

Bob's Camping Rental Store

Camping Supplies	Price Per Day
Mountain Bikes	\$25
Climbing Gear	\$15
Tents	\$20
Canoes	\$30
Backpacks	\$10

- Beth needs to rent a bike and tent for two days. How much will this cost her? _____
- Bryce needs to rent a backpack, canoe, and tent for three days. How much will this cost him? _____
- Bob will offer a 10% discount if you rent an item for five or more days. How much would a tent cost to rent for five days? _____
- Circle the numbers that are composite.
10 16 21 23 25 29 30
- Circle the number that is NOT divisible by 6.
12 15 18 24 30 36 48

For Problems 6–10, circle *Always true*, *Sometimes true*, or *Never true*.

- The radius of a circle is half the diameter.
Always true Sometimes true Never true
- A negative plus a positive is a negative.
Always true Sometimes true Never true
- The diameter of a circle passes through the center of a circle.
Always true Sometimes true Never true
- A negative times a negative is a negative.
Always true Sometimes true Never true
- The perimeter of a shape is more than its area.
Always true Sometimes true Never true