GRADE 5 2015 EOY Study Guide (most answers in red)

Topic 1 (Place Value)

1. The area of the Big Cypress National Preserve is approximately 291,108 hectares. What is this number in expanded form?

200,000 + 90,000 + 1000 + 100 + 8

2. In 1950, the total population of the world was about 2,560,000,000 people. What is this number in word form?

Two billion, five hundred sixty million

3. A middle school held a raffle to raise money for the Drama Club. Jose drew ticket number 31,820, Amaya drew ticket number 23,435, Phil drew ticket number 29,482, and Leah drew ticket number 23,767. Whose ticket number was the least?

Amaya's ticket # 23,435

4. Name two decimals equivalent to 0.7.

0.70 0.700 or equivalent

5. Carla made 1.3 gallons of punch for the school dance. Name a decimal that is equivalent to 1.3?

1.30 1.300 or equivalent

6. One of the fastest recorded winning average speeds in the Indianapolis 500 auto race was 191.63 miles per hour. What is the value of the 3 in this speed?

3 hundredths

7. Samuel wrote down the number 1.125. Thomas wrote down the number 1.118. Carlene wrote a number between Samuel's and Thomas's numbers. What could be Carlene's number?

Any number from 1.119 through 1.124

8. Order the numbers from least to greatest.

3.61 3.061 0.361 3.16 **0.361, 3.061, 3.16, 3.61**

9. A green sea turtle weighs 355.3 kilograms. What mixed number is equivalent to this number?

$355\frac{3}{10}$

10. Which set of numbers is in order from least to greatest?

A. 0.221, 2.21, 2.12
B. 5.612, 5.138, 5.221
C. 6.556, 6.586, 6.772 **Choice C**
D. 1.482, 1.476, 1.606

Topic 2 (Adding & Subtracting Decimals)

1. Marta, Jon, and Dianne are taking pictures at the pep rally for the school yearbook. Marta takes 59 pictures, Jon takes 143 pictures, and Dianne takes 17 pictures. What is the total number of pictures they took at the pep rally?

219 pictures

2. Marvin measured 5.524 grams of salt for a science experiment. He recorded this amount to the nearest tenth in his science journal. What is this number rounded to the nearest tenth?

5.5 grams

3. Armond used his estimation skills to determine that his math textbook contains 387,210 words. What is this number rounded to the nearest ten thousand?

390,000 words

4. On Friday night, 236 people attended the school play. On Saturday night, 478 people attended. Write an estimate equation to show the difference between the number of people that attended the school play on Friday and Saturday nights.

480 – 240 = difference **480 – 240 = 240**

5. Case Elementary School placed their yearly paper order. Of the 96 reams of paper they ordered, 32 reams were colored copy paper, 38 reams were construction paper, and the rest was white paper. How many reams of the paper order was white paper? Draw a picture to solve. Use a variable to write an equation. Solve.

Color (32) + Construction (38) + White ( ) = Total (96)
26 reams of white paper

6. The Barley Sheaf Elementary School has held a clothing drive for the last few years. In 2005, they collected 1,896 pounds of clothing. In 2006, they collected 1,922 pounds of clothing. In 2007, they collected 2,352 pounds of clothing. How many pounds of clothing did the school collect in the three years altogether?

6170 pounds of clothing

7. Ramon bought 2 drinks for $1.25 each and 2 boxes of popcorn for $2.50 each. How much did he pay in all?

$7.50

8. The Environmental Club collected 287 cans for their first recycling drive. During their second recycling drive they collected 489 cans. About how many more cans did they collect during their second recycling drive than the first?

About 200 cans more

9. Letecia ran 3 miles after school. The first mile she ran in 9.5 minutes, the second mile she ran in 10.3 minutes, and the third mile she ran in 8.75 minutes. What is the difference between Letecia's time for the second and third mile?

1.55 minutes

10. For himself and a friend, Joey bought a total of three slices of pizza for $1.50 each and two drinks for $2 each. If he used two $5 bills to pay, how much change did he receive?

$10 - $8.50 = $1.50

Topic 3 (Multiplying Whole Numbers)

1. The speed limit on a highway is 65 miles per hour. At this speed, how many miles would a car travel in 3 hours?

195 miles

2. A one-tablespoon serving of olive oil contains 120 calories. The label on a bottle of olive oil states that it contains 66 servings. How many calories are in the whole bottle of olive oil?

7920 calories

3. $575 \times 92 =$ **52,900**

4. The volume of a cardboard box with equal sides 5 inches long is 5^3 cubic inches. What is its volume?

5 X 5 X 5 = 125 cubic inches

5. $932 \times 78 =$ **72,696**

6. Solve: $6^4 =$ **1296**

7. Every day at a toy company, 9 people each assemble 49 bicycles. The company needs to know how many bicycles they would assemble over a period of 67 work days. Estimate the number of bicycles assembled.

10 X 50 = 500 → 500 X 70 = 35,000

8. A ride at an amusement park has 21 cars. If each car holds 9 people, what is the total number of people the ride can hold?

189 people

9. Use patterns and properties to compute mentally. $300 \times 800 =$

240,000

10. Use patterns and properties to compute mentally. $50 \times 40 =$ **2000**

Topics 4 & 5 (Dividing by 1 and 2-Digit Divisors)

1. Find the quotient: 298 ÷ 3, If there is a remainder, write it as a fraction.

$99\frac{1}{3}$

2. Clement's family spent a total of $224 on dinner during their 7 day vacation. If they spent about the same each night, what is the most reasonable amount dinner cost each night? (to nearest dollar)

$32

3. A toy company packs 385 puzzles into 7 boxes. If the same number of puzzles is packed in each box, what is the number of puzzles in each box?

55 puzzles

4. The money shown is to be divided among 6 people. Describe why the $100 bill must be exchanged for ten $10 bills. **$144 ÷ 6 people = $24. You don't have enough ten dollar bills to give each person $24.**

5. A farmer plans to divide his 873 acre farm into 9 fields of equal size. How many acres will each field contain?

97 acres

6. There are 236 photos to be distributed evenly to 4 photo albums. What is the most reasonable number of photos in each album?

59 photos

7. If 268 is divided by 4, where should the first digit of the quotient be placed?

Over the 6

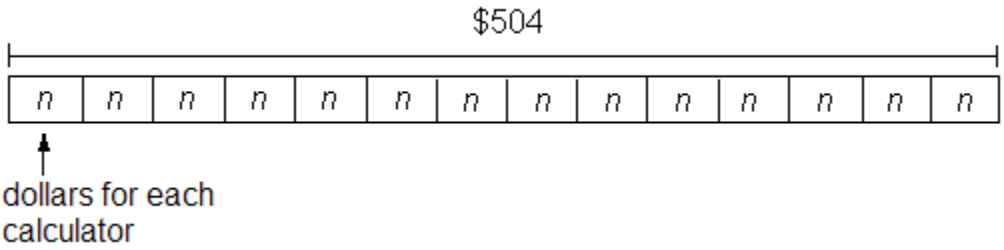
8. Find the quotient: 2,108 ÷ 4= **527**

9. Twenty-eight packages of bird seed contain 3,080 ounces of bird seed. About how many ounces are in each package?

3,000 ÷ 30=100 ounces (Use estimation due to "About how many")

10. Find the quotient: 4,320 ÷ 45 **96**

11. As Math Club President, Kyle purchased a calculator for each of the 14 members of the club. He spent a total of $504. Based on the diagram below, write a multiplication equation to solve the problem.



14 X n = $504

12. The table shows the total amount of money Mike earned on Friday, Saturday, and Sunday. Mike earns $21 per hour. How can you find how many hours Mike worked on Friday and Saturday combined?

Day	Total Amount Earned
Friday	$161
Saturday	$112
Sunday	$196

$161 + $112 = $273 **$273 ÷ 21 = 13 hours**

Topic 6 (Multiplying Decimals)

1. Sarah lined up ten buttons in a row. Each button is 0.35 inches long. How many inches long is the row of buttons?

3.5 inches

2. A bakery uses 3.25 cups of flour for each batch of bread. On Monday, the bakery made 37 batches of bread. How many cups of flour did the bakery use on Monday?

120.25 cups of flour

3. At birth, Minnie's Chihuahua only weighed 4.75 ounces. After 18 months, the Chihuahua weighed 17 times her birth weight. How much did Minnie's Chihuahua weight at 18 months old?

80.75 ounces

4. Irma rides her bike 82.4 miles each month. Estimate the total distance Irma bikes in 6 months?

6 X 80 = 480 miles

5. Mike has a garden that has an area of 318.9 square feet. He wants to fill 0.6 of the garden with tomatoes. How many square feet will be planted with tomatoes?

191.34 square feet

6. What is 7.83 x 1.7? **13.311**

7. What is the product of 7.3 and 0.4? **2.92**

8. A window in Miley's room is 78.5 inches high. She wants to put up blinds that will cover 0.8 of the height of the window. How long should the blinds be? **62.8 inches**

Topic 7 (Dividing Decimals)

1. The edge of a playground is 126.3 feet long. Carl wants to walk the edge of the playground taking 100 equal steps. How long should each step be? **1.263 feet**

2. What is 37.35 ÷ 1,000? **0.0375**

3. Martin bought a package of 16 notepads for $6.08, including tax. What is the price of each notepad? **$0.38 or 38 cents**

4. Adrienne saved $100.16 from her paycheck in 8 weeks, saving the same amount each week. How much money did Adrienne save each week?
$12.52

5. If 28 ÷ 5 = 5.6, what is 0.28 ÷ 5? **0.056**

6. On average, Josh bikes 60.4 miles in 4 hours. How far can Josh bike in 1 hour?
15.1 miles

7. The Smith family spends $491.16 a year on their electric bill. They have a payment plan where they pay the same amount each month. About how much does the Smith family spend on their electric bill each month?
$40.93

8. What is 21.35 ÷ 0.7? **30.5**

9. What is 29.12 ÷ 9.1 **3.2**

Topic 9 (Adding & Subtracting Fractions)

1. Thom began building a chair last week. He built $\frac{5}{16}$ of the chair during the weekdays, and $\frac{7}{16}$ on the weekend. How much of the chair he has built?

$\frac{12}{16}=\frac{3}{4}$ **of the chair**

2. In Mr. Wright's DVD collection, $\frac{5}{12}$ of the movies are comedies and $\frac{3}{12}$ of the movies are documentaries. What fraction of his DVDs are either comedies or documentaries? Write your answer in simplest form. **(**$\frac{8}{12}=\frac{2}{3}$ **of the collection are comedies or documentaries)**

3. The table shows the different packs of sports cards available for purchase. What is the smallest number of baseball and football cards that Herb can buy so that he will have the same number of each type of card?

Game	Number of Cards per pack
Baseball	20
Hockey	35
Football	14

140 cards

4.Carson brought $\frac{7}{8}$ pounds of cans in for recycling this week. Last week, he recycled $\frac{5}{6}$ pounds of cans. How many more pounds of cans did Carson bring in this week than last week?

$\frac{7}{8}-\frac{5}{6}=$

$\frac{21}{24}-\frac{20}{24}=\frac{1}{24}$ $\frac{1}{24}$ **pounds**

5.One of the meat skewers cooking on Tamra's barbeque is $\frac{11}{12}$ foot long. A vegetarian skewer measures $\frac{5}{8}$ foot long. How much longer is the meat skewer than the vegetarian skewer?

$\frac{22}{24}-\frac{15}{24}=\frac{7}{24}$ *feet*

6. Kay looked in her closet to find that $\frac{3}{5}$ of her T-shirts were black and $\frac{1}{10}$ of the T-shirts were white. What fraction of the t-shirts are either black or white?

$\frac{7}{10}$

Topic 10 (Adding & Subtracting Fractions & Mixed Numbers)

1. Tom began building a deck last week. He built $\frac{5}{16}$ of the deck during the weekdays, and $\frac{7}{16}$ on the weekend. How much more of the deck did Tom build during the weekend than the weekdays? $\frac{7}{16} - \frac{5}{16} = \frac{2}{16} = \frac{1}{8}$ **of the deck**

2. Chad's older brother is $5\frac{1}{3}$ feet tall. Chad's younger brother is $2\frac{2}{3}$ feet tall. How much taller is Chad's older brother than his younger brother?

$2\frac{2}{3}$ **feet taller**

3. Allyson has exactly $51 to buy notebooks and pencils for the math league competition. Packages of notebooks cost $5 each, and packages of pencils cost $4 each. She wants the number of packages of pencils to be three times the number of packages of notebooks. How many packages of notebooks and pencils can she buy for $51?

3 packs notebooks & 9 packs pencils

4. Lionel is walking to his best friend's house, which is $5\frac{1}{3}$ blocks away. So far, he has walked $2\frac{5}{6}$ blocks. How many more blocks does he need to walk?

Two and one-half blocks

5. Which of the following pairs of numbers have a least common multiple of 56?

a. 2 and 28
b. 7 and 8
c. 4 and 14
d. 3 and 17

Choice B

6. Peter drank $\frac{1}{8}$ of a gallon of orange juice on Monday and $\frac{3}{8}$ of a gallon of orange juice on Tuesday. How much orange juice did Peter drink?

One-half gallon

Topic 11 (Multiplying & Dividing Fractions & Mixed Numbers)

1. Kevin is taking a poll of his gym class to find their favorite sport. He finds that $\frac{2}{9}$ of the class prefers soccer. There are 45 students in his gym class. How many students prefer soccer?

10 students prefer soccer

2. Alex is painting a 12-foot long mural on the wall of the community center. If he has finished $\frac{1}{4}$ of the mural, how many feet of the mural has he painted?

3 feet

3. Margaret is selling wrapping paper for a fundraiser. She promised to sell 180 rolls by the end of the month. If she has sold $\frac{2}{3}$ of her rolls so far, how many rolls of wrapping paper has she sold?

120 rolls

4. Mary skipped a stone 44 feet across a lake. Gerald skipped a similar stone $\frac{6}{11}$ as far as Mary skipped it. How far did Gerald skip his stone? **24 feet**

5. What is $\frac{3}{5} \times \frac{1}{7}$? $\frac{3}{35}$

6. What is $3\frac{1}{2} \times 1\frac{4}{5}$? $6\frac{3}{10}$

7. Michael wants to donate $20 to charity this month. If he has already donated $\frac{2}{5}$ of his goal, how much has he donated so far? **$8.00**

8. There are 48 different animals pictured in Jorge's book. If $\frac{1}{3}$ of them are herbivores, how many are NOT herbivores?

32 animals are NOT herbivores

9. What is $\frac{4}{3} \times \frac{3}{11}$? Simplify. $\frac{4}{11}$

10. What is $3\frac{1}{8} \times 1\frac{1}{5}$? Simplify. $3\frac{3}{4}$

11. Brandon uses $\frac{2}{3}$ of a jar of peanut butter each week. He wants to know how many jars of peanut butter he will use in 4 weeks.

How many jars will he use? $2\frac{2}{3}$ **jars of peanut butter**

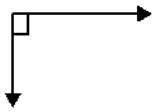
12. A waitress fills bowls with soup. She puts $\frac{5}{6}$ cup of soup in each bowl. How many bowls can the waitress prepare with 40 cups of soup? $40 \div \frac{5}{6} =$ $\frac{40}{1} \times \frac{6}{5} = 48$ **48 bowls**

13. Find the quotient. Simplify if possible. $\frac{7}{9} \div \frac{5}{6} =$ $\frac{14}{15}$

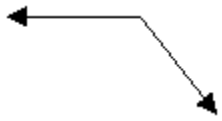
14. Find the quotient of $\frac{3}{4} \div \frac{9}{20}$ in simplest form. $1\frac{2}{3}$

Topics 15 & 16 (Classifying Plane Figures & Coordinate Geometry)

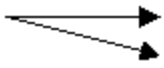
1. Classify the following angles.

a. 

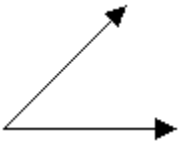
Right Angle

b. 

Obtuse Angle

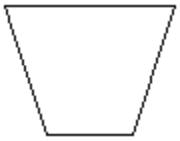
c. 

Acute Angle

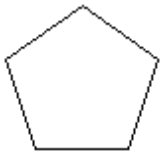
d. 

Acute Angle

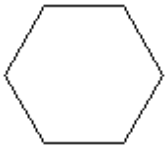
2. Name the polygons.

a. 

Trapezoid (quadrilateral)

b. 

Pentagon

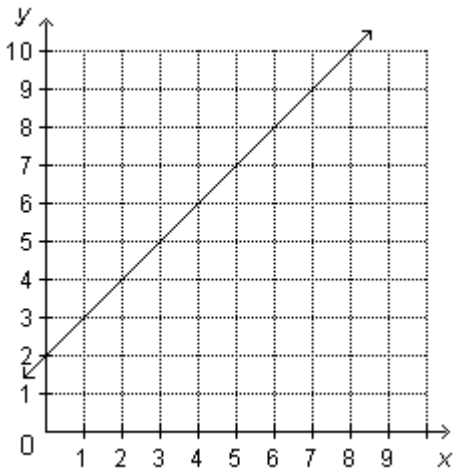
c. 

Hexagon

3. Classify a square in as many ways as possible.

Quadrilateral, parallelogram, rectangle, rhombus, square

4. Complete the table of ordered pairs based on the line drawn on the coordinate grid.



x	y
0	**2**
4	**6**
7	9
8	10

5. Describe the pattern shown by the connected points in the question above.

The *x*-coordinate is 2 less than the *y*-coordinate

or ..the *y* value is 2 more than the *x* value

6.Using the angle measurements given, name and classify the figure. Explain how you know.

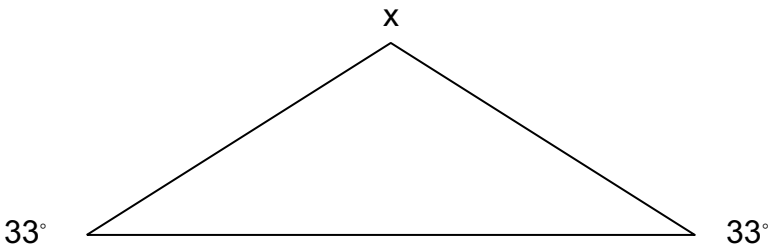
140°, 20°, 20° _**isosceles**_____ (by sides) _**obtuse**_____ (by angles) __**triangle**_____ (polygon)

It is isosceles because there are two angles (sides) that are equal

It is obtuse because there is one angle that measures more than 90 degrees

It is a triangle because it has 3 angles

7. Without using a protractor, find the value of angle *x*? **114 degrees**



33 degrees + 33 degrees = 66 degrees. 180 degrees – 66 degrees = 114 degrees.