EOC 7th Grade Practice Exam Template

Name: Aris Winger

#1 Points possible: 10. Total attempts: 0

Standard automobile license plates in a country display 2 numbers, followed by 2 letters, followed by 3 numbers. How many different standard plates are possible in this system? (Assume repetitions of letters and numbers are allowed.)
Your answer is : _____

#2 Points possible: 10. Total attempts: 0

If $\angle A$ and $\angle B$ are supplementary find the measure of each angle.

$m\angle A = 11x + 8$

$m\angle B = 4x - 38$

$m\angle A =$ _____ $m\angle B =$ _____

#3 Points possible: 10. Total attempts: 0

Evaluate the expression $8y + 5$ when $y = 4$.

Answer = _____

#4 Points possible: 10. Total attempts: 0

Juan owns 7 pairs of pants, 5 shirts, 8 ties, and 5 jackets. How many different outfits can he wear to school if he must wear one of each item?

He can wear _____ different outfits.

#5 Points possible: 10. Total attempts: 0

Use the distributive property to simplify the expression:

$$10\left(\frac{3}{5}y + \frac{3}{5}\right) = \text{\_\_\_\_\_}$$

#6 Points possible: 10. Total attempts: 0

If $\angle A$ and $\angle B$ are complementary find the measure of each angle.

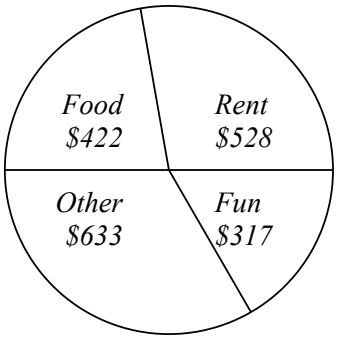
$m\angle A = 2x + 2$

$m\angle B = 6x + 8$

$m\angle A =$ _____ $m\angle B =$ _____

#7 Points possible: 10. Total attempts: 0

Kara categorized her spending for this month into four categories: Rent, Food, Fun, and Other. The amounts she spent in each category are pictured here.



What percent of her total spending did she spend on Fun? Answer to the nearest whole percent.

_____ %

#8 Points possible: 10. Total attempts: 0

Aquarium Tickets

The Aquarium charges $20 for adult admission and $9 for each child.

Write an algebraic expression to represent this situation.
Let C represent the number of children and A represent the number of adults attending the field trip.
Total cost for the field trip: _____

Determine the total bill for the field trip if 6 adults and 37 children went to the aquarium.
The total bill for the field trip would be $ _____

#9 Points possible: 10. Total attempts: 0

Giving a test to a group of students, the grades and gender are summarized below

	A	B	C	Total
Male	8	6	7	21
Female	11	2	13	26
Total	19	8	20	47

If one student was chosen at random,

find the probability that the student was male.

_____

Give your answer as a fraction or decimal.

#10 Points possible: 10. Total attempts: 0

Completely simplify the expression

$-10(6w+7)+2(5w+3)$

Answer = _____

#11 Points possible: 10. Total attempts: 0

During this year, the budget has increased by 8 %. This increased budget is $ 139,968 . How much was the budget in the past, before the increase?

If necessary, round to the nearest dollar. Enter the answer without any commas.

_____

#12 Points possible: 10. Total attempts: 0

It is estimated that each guest at a party will eat $\frac{5}{6}$ pounds of chocolates. How many guest can be served with 25 pounds of chocolate?

_____ guests

#13 Points possible: 10. Total attempts: 0

If you only have a 1/11 measuring cup and a recipe calls for $19\frac{9}{11}$ cups of flour, how many 1/11 cups would you need to use?

_____ $\frac{1}{11}$th cups

#14 Points possible: 10. Total attempts: 0

Using Tables to Solve Application Problems

Cameron purchased blue and green candy for a party. He bought 7 blue candies for every 6 green candies.

Complete the table below by determining the number of green candies and the total number of candies Cameron bought for the given number of blue candies he bought.

Blue Candies	Green Candies	Total Candies
7	_____	_____
14	_____	_____
21	_____	_____
28	_____	_____
35	_____	_____

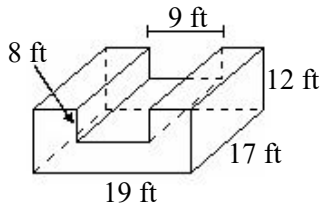
Based on the table, how many **blue** candies did Cameron buy if he bought a total of 39 candies? _____ ***blue candies***

Based on the table, how many **green** candies did Cameron buy if he bought 14 blue candies? _____ ***green candies***

Based on the table, how many **total** candies did Cameron buy if he bought 24 green candies? _____ ***total candies***

#15 Points possible: 10. Total attempts: 0

Figure is not drawn to scale.



What is the volume of the box?

_____ ft^3

#16 Points possible: 10. Total attempts: 0

Find the supplement of each of the following angles.

112° is supplementary to _____ °

103° is supplementary to _____ °

86° is supplementary to _____ °

82° is supplementary to _____ °

68° is supplementary to _____ °

#17 Points possible: 10. Total attempts: 0

There are 400 students enrolled in our school. $\frac{3}{10}$ of the students are girls. How many students are boys?

_____

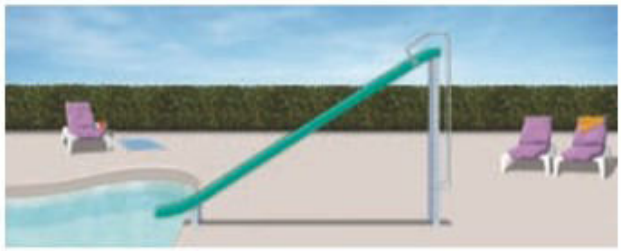
#18 Points possible: 10. Total attempts: 0

Standard automobile license plates in a country display 2 numbers, followed by 3 letters, followed by 2 numbers. How many different standard plates are possible in this system? (Assume repetitions of letters and numbers are allowed.)

There are _____ different standard plates possible in this system.

#19 Points possible: 10. Total attempts: 0

The water slide is 4 feet tall, and the end of the slide is 5 feet from the base of the ladder.



What is the slope of the slide? = _____

#20 Points possible: 10. Total attempts: 0

Suppose your school costs for this term were $6940 and financial aid covered $\frac{3}{4}$ of that amount.

How much did financial aid cover? $ _____

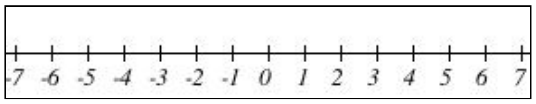
How much do you still have to pay? $ _____

#21 Points possible: 10. Total attempts: 0

Solve the following inequality. Write the answer as an inequality, and graph the solution set.

$-2b+7 < \ -b+9$

_____



#22 Points possible: 10. Total attempts: 0

Use the distributive property to simplify the expression:

$4(y+6) =$ _____

#23 Points possible: 10. Total attempts: 0

Dog Food

Abi bought dog food for an animal rescue shelter. She bought 7 bags that weighed 6.9 pounds each and 11 bags that weighed 12.5 pounds each. How many pounds of dog food did she buy? Round your answer to the nearest tenth.

Abi bought _____ pounds of dog food.

#24 Points possible: 10. Total attempts: 0

Fraction Applications

Solve the fraction application problems. ***Write your answers as a mixed or whole number*** Make sure to simplify any fractions completely.

Jai walks to school and takes the bus home. Jai lives $\frac{7}{9}$ of a mile from school. If he walked to school 5 days this week, how many miles did he walk?

_____ *miles*

Dawn made 32 quarts of punch for a wedding party. If each glass holds $\frac{8}{17}$ of a quart, how many glasses of punch can she serve?

_____ *glasses*

Galen is making a shrimp boil dinner. The recipe calls for $2\frac{1}{5}$ cups of white wine. However, Galen is only making $\frac{5}{6}$ of the recipe. How many cups of white wine should he use?

_____ *cups*

A turtle is walking at a rate of $\frac{13}{100}$ miles per hour. How long will it take the turtle to walk $\frac{1}{4}$ of a mile?

_____ *hours*

#25 Points possible: 10. Total attempts: 0

Find the area of a sector with a central angle of 0.45 rad in a circle of radius 8.2 ft.
area = _____ sq-ft

Report answer accurate to 4 decimal places.
(Do not use `pi` for π for this problem.)

#26 Points possible: 10. Total attempts: 0

Find the amount of tax and the selling price. Round to the nearest cent.

Original Price: $59.85

Sales tax rate: 15%

Tax amount $ _____

Selling price $ _____

#27 Points possible: 10. Total attempts: 0

The Story of x	
Story	**Algebraic Expression**
Subtract 8 from x.	_____
Step 1: Multiply x by 2 Step 2: Subtract 7 .	_____
Step 1: Add 4 to x. Step 2: Multiply by 3	_____
Step 1: Multiply x by 5 Step 2: Add 8 . Step 3: Raise to the second power.	_____

#28 Points possible: 10. Total attempts: 0

Using Tables to Solve Application Problems

Cameron purchased blue and green candy for a party. He bought 2 blue candies for every 5 green candies.

Complete the table below by determining the number of green candies and the total number of candies Cameron bought for the given number of blue candies he bought.

Blue Candies	Green Candies	Total Candies
2	_____	_____
4	_____	_____
6	_____	_____
8	_____	_____
10	_____	_____

Based on the table, how many **blue** candies did Cameron buy if he bought a total of 21 candies? _____ ***blue candies***

Based on the table, how many **green** candies did Cameron buy if he bought 4 blue candies? _____ ***green candies***

Based on the table, how many **total** candies did Cameron buy if he bought 20 green candies? _____ ***total candies***

#29 Points possible: 10. Total attempts: 0

Consider the following data set. Round your answers to the nearest hundredth as needed.

66 88 58 63 88

69 88 42 70 60

Mean = _____

Median = _____

Mode = _____

Range = _____

#30 Points possible: 10. Total attempts: 0

Write $\frac{1}{5}$ as a decimal and as a percent.

as a decimal: _____

as a percent: _____%

#31 Points possible: 10. Total attempts: 0

An executive in an engineering firm earns a monthly salary plus a Christmas bonus of 7600 dollars. If she earns a total of 97400 dollars per year, what is her monthly salary in dollars?

Your answer is : $ _____

Give your answer to the nearest cent.

#32 Points possible: 10. Total attempts: 0

Consider the following data set. Round your answers to the nearest hundredth as needed.

68 64 87 98 76

98 98 75 53 71

Mean = _____

Median = _____

Mode = _____

Range = _____

#33 Points possible: 10. Total attempts: 0

Find the unit price. If necessary, round your answer to the nearest cent. You would enter an answer like $0.49/pound, the value (like *0.49*) in the first box and the appropriate unit (like *pound*) in the second box.

16 gallons for $5.89

$_____/_____

#34 Points possible: 10. Total attempts: 0

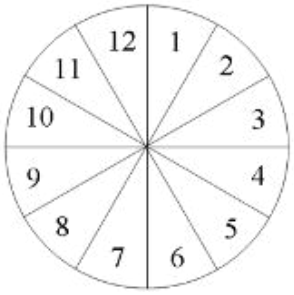
Solve the formula $Ax + By = C$ for A.

A = _____

Enter your answer as an expression.
Be sure to 'preview' your answer before submitting!

#35 Points possible: 10. Total attempts: 0

Use the spinner below.



P(<3) = _____

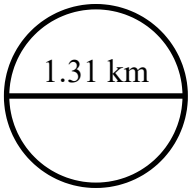
#36 Points possible: 10. Total attempts: 0

Solving Applications with the Circumference of a Circle

Solve the application problems. You may use π or 3.14 in your computations.

Round your final answers to two decimal places. (Don't round until the very end of your computations.)

Figure A



Kerri enjoys rollerblading around a circular lake at the park. **Figure A** is a geometric model of the lake.

What is the distance around the lake? _____ km

If Kerri goes around the lake 4 times on Monday, how far did she rollerblade on Monday?

_____ km

If Kerri goes around the lake 4 times a day, and 2 times in a week, how far did she rollerblade in total for the week?

_____ km

#37 Points possible: 10. Total attempts: 0

Simplify: $-5n^4 + 2n^4$

Enter your answer as an expression in terms of n. Use the ^ symbol for a power: 3^4 = 3^4.

_____

#38 Points possible: 10. Total attempts: 0

What number is 1% of 4900?

_____

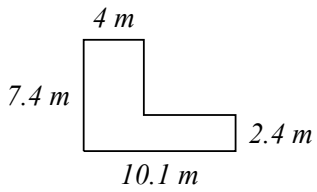
#39 Points possible: 10. Total attempts: 0

A knife set sells for $196. However, this weekend it is on sale for 162.68. What is the percent discount?

The discount is _____ %

#40 Points possible: 10. Total attempts: 0

Find the perimeter and area of the figure pictured below.



Perimeter = _____ m

Area = _____ m^2
