Common Core Math 7 EOG Questions-Expressions & Equations

5. The isosceles triangle below has a perimeter of 6x+7. If the base is 5, what is the length of each of the unknown sides? 5 inches A. 3x+1 B. 6x+2 C. 3x+2 D. x+2 D. x+2	A. 1 centimeters B. 3 centimeter C. 5 centimeters D. 10 centimeters 3. Which expression is NOT equivalent to 8p+6? A. 2(4p+3) B. 2(4p-1)+10 C12p+30+20p-24 D. 2p+4+5p+2+p	1. The rectangle below has a length of 7 centimeters and a width of 3 centimeters. 7 cm. 3 cm. Three centimeters are subtracted from the length, and c centimeters are added to the width. The area of the new rectangle is 32 square centimeters. What is the value of c?
6. The triangle shown has a perimeter of 6x + 1. What is the length of each side of the triangle? A. 18x + 3 B. 2x + $\frac{1}{3}$ C. 2x + 1 D. 3x + $\frac{1}{3}$	4. Which expression is equivalent to 9m - 36? A. 9(m - 36) B. 8m - 12 + m + 48 C. 9(m + 4) D12m + 4 + 21m - 40	2. A rectangle's length is three more than two times its width. If the perimeter of a rectangle is 66 feet, what is the measurement of the length? A. 10 inches B. 21 inches C. 23 inches D. 45 inches

	B. Eric
.c	A. Margie
•	started with the same amount, who has the
В. р	stuffed a of his envelopes. If each student
.A.	stuffed 62% of his envelopes. Connor has
	stuffed 96 out of 144 envelopes. Eric has
as $ 4(p-3)-12p \ge 36$	stuff envelopes for a fundraiser. Margie has
nd 14. What is the solution set for the inequality,	13. Margie, Eric, and Connor helped their band
D. Salty and sweet snacks are tied.	
C. Pizza	
B. A sweet snack	
A. A salty snack	
the most desired?	
Based on the three surveys, which snack was	
students wanted pizza.	
Piper reported that .2 of the	
students wanted a sweet snack.	D. 4(15w) + 90 = 360
Laura reported that \$ of the	C. 15w + 90w = 360
Students wanted a sairy snack.	B. 4(15w + 90) = 360
Jaime reported that 4 out of 13	A. 15w + 90 = 360
Survey Results	until her savings are quadrupled?
	which expression shows long must she save for
tield trip.	\$15 each week (w) from her part-time job,
type of snacks that their peers wanted for the	far, she has saved \$90. If she plans to save
12. Several students conducted a survey of the	11. Paula is saving for a spring break trip. So
D19	D. 2
7 :	
۵ پ	A2
	expression $\pm (8m-4) - 3m$ is simplified?
10. What is the coefficient of k when the	9. What is the coefficient of m when the
Dop - /	D6a - 30
C. 4p-/-sp	C30 - 6a
	B. 10a - 16a - 30
	A. 6a - 30
±(8p - 14) - 1∪p?	5(2a - 6) - 16a?

Common Core Math 7 EOG Questions- Ratios and Proportional Relationships

1. Cameron's triend John is going to Italy. She 2. Ine ladders shown be wants John to bring her back a souvenir item but Italy uses the Euro as its own unit of currency.

Conversion

1 US Dollar = about .77 European Euro

souvenir? many European Euros can John spend on the If Cameron gives his friend \$50, about how

- A. About \$39
- 50 About \$49
 About \$50
- About \$65

4. A in the ₹-pot Ö 11.25 feet 12.5 feet 14 feet 25 feet ×

much did Jennifer pay?

40% of the cost and Jennifer paid the rest. How 9. Jennifer's new bike costs \$96. Her parents paid

birthday. She had to pay 7.5% sales tax on the 10. Leann purchased a new computer for her

computer. If she paid \$63.75 in sales tax, how

much did the computer cost?

A. 9 minutes

it take Karla to edit 3 pages?

edits of a page in 3 minutes. How long would

. Karla, an editor for "The Legacy" newspaper,

- æ 15 minutes
- 45 minutes
- 55 60 minutes

smaller des of neer A Pince

Ö

\$134.40 \$130.00

B. 68.53 C. \$850 D. \$900

A. \$4.78

B A. \$38.40

\$57.60

- _
- œ The larger package costs \$2.60 more per
- Ö pound than the smaller package
- lemon juice are in the lemonade? juice to sugar water is 2:3. How many cups of 5. Lauren made 15 cups of lemonade by mixing lemon juice and sugar water. The ratio of lemon Penelope measures the distance to be 7.5 inches. to find out how far she has to drive. On the map, does Penelope need to drive? If the map scale is 1.5 in. = 40 mi, how many miles Penelope is driving to college. She looks at a map
- A. 6 cups 9 cups

10 cups

22.5 cups

- B. 210 miles A. 200 miles
- \mathcal{C} 300 miles
- ø $\frac{9}{32}$ mile

e ladders shown below are standing against all at the same angle. How high up the wall the lonaer ladder ao? (All measurements are
--

that Bonnie spent during her last trip to 7. The table below shows the amount of money

8. On a map, the length of the road from town

represents 8 miles. What is the actual A to B is 12 inches. On this map, \$\frac{1}{4}\$ inch

distance from town A to B in miles?

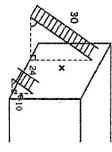
A. 128 miles

B. 96 miles

72 miles

Target Purchases

\$56



total did she spend on groceries?

A. 10% B. 36% C. 53%

. 88%

To the nearest percent, what percent of the

D. 1.125 miles

School Supplies Groceries Clothing

\$16 \$82

- more than the smaller package. The larger package costs \$6.52 per pound
- pound than the smaller package.
- pound than the smaller package. The larger package costs \$1.32 more per
- The larger package costs \$0.04 more per

13. Yosef purchased a new sweater. The total price of the sweater, including the 8% sales tax, was \$16.74. What was the retail cost of the sweater (before tax)? A. \$15.40 B. \$15.50 C. \$18.08 D. \$16.66	11. Miller earns \$70,000 per year and puts 7% of his earnings into a savings account. What is the total amount in Miller's savings account after 1 year if the interest rate is 3%? A. \$147 B. \$2,100 C. \$5,047 D. \$72,100
14. The sweatshirt you purchased was on sale for \$29.25, having been marked 35% off. What was the original price? A. \$45 B. \$39.49 C. \$35.46 D. \$19.01	12. A writer earns 8% of total sales dollars as a commission. If 2,000 copies of his book are sold at \$14.95 each, how much commission does he earn? A. \$1.20 B. \$119.60 C. \$160 D. \$2,392

7th Grade Practice Grid-in Questions from WCPSS Teachers

- Write only one digit or symbol in each box. Spaces are permitted before or after your answer, but not within the answer. Darken the corresponding circle below each box. The computer scores based on the darkened circles.
- For a negative number, write a negative sign in the top of the leftmost column. Darken the top circle below.
- Do not use symbols such as comas or dollar signs. Use only symbols that are provided in the circles.
- If an answer is a mixed number, it must be changed and entered as an improper fraction or a decimal. If your answer is the mixed number four and one-half, it can be bubbled as 9/2 as an improper fraction or 4.5 as a decimal.



Ouestion	Answer
A bicycle that costs \$320 is on sale this week for 20% off the regular	
price. How much can be saved by purchasing the bicycle this week?	
The scale on a blueprint of a house is 1 inch = 5 feet. On the blueprint,	
the length of the house is 12.5 inches. What is the length, in feet, of the	
actual house?	
At the school supply store you can buy 3 pencils for \$1.05. How much	
would it cost if you wanted to buy 7 pencils?	
Josie ran $3\frac{1}{2}$ miles on Saturday. Kelly ran $1\frac{2}{3}$ miles on Saturday. How	
much further did Josie run than Kelly?	
Susie deposits \$12,000 into a savings account that earns an interest rate	
of 8% each year. If she does not deposit or withdraw any money for 4	
years, how much interest will she earn? Use the formula I = prt to solve	
for the interest.	
The low temperature for 5 consecutive days in Anchorage, Alaska was as	
follows: -20°, -12°, -8°, -13°, and -12°. What was the average low	
temperature for these 5 days?	
Two angles are complementary. If the measure of one angle is 36°, what	
is the measure of the second angle?	
The distance from the airport to your vacation villa is 12.4 cm on a city	
map, and 1 cm represents 4 km. Find the actual distance in kilometers.	
Caleb is making Crab Stuffed Potatoes. He found a recipe that will make	
4 servings: 4 large baked potatoes, $\frac{1}{2}$ c evaporated milk, $\frac{1}{3}$ c butter, 1	
Tablespoon grated onion, 1 c sharp grated cheese and 1 c crabmeat.	
How much butter does he need to make 6 servings?	
$(24 \div 3)^2 \div -2^3$	
A factory makes sheets of metal that are 2/5 of an inch thick. If a worker	
at the factory makes a stack of 6 of the sheets, how many inches thick	
will the stack be?	

Find the unit rate if 12 pounds of potatoes cost \$10.68.	A family of 4 is taking a trip to Disney World. Each person will pay a total of \$122. The cost covers the \$74 admission fee and n tickets for rides. Each ticket costs \$4. How many rides can each person ride?	Find the value of x. 2x+10° 40°	14 in 10.5in Find the area of the rectangle in ft².	needed to cover the entire room? A scale of 3.5in : 6ft was used to create this rectangle:	$\frac{1}{2}(-6+10)+[-9+(-10)]$ 48 is 20 % of what number? If $\frac{1}{5}$ of a can of paint will cover $\frac{1}{4}$ of a room, how much paint will be	The ratio of pigs to donkeys at the state ran is 2.2. In animals is 65. How many of those animals are pigs? Find the circumference of a circle with a diameter of 5ft? Find the area of a hula hoop that has a radius of 2 ft. Solve the following expression:	5h - 12 + 2h + 7 = 4 Adam bought a bag of chips from the store. The weight on the bag of chips was 6.2 oz. Adam wanted to know if he was getting his money's worth so he weighed the chips. He was surprised that it only weighed 5.9 ounces. What is the percent error for the weight of the bag of chips? Round to the nearest tenth of a percent, if necessary.

Rich'y s car gets 26 to miles per gallon of gas. Find the unit rate. Rich s baby brother weighted 7th pounds, when born, Since then, her brother has gained 3th pounds. How much does Rita's baby brother weigh now? Express the weight as a decimal. What is the value of a in [4.33a + (.4.23)] + (.1.33a) = 0 If the quadrilateral below is dilated by a scale factor of 3, what will be the new perimeter? 12. ft		_																
wy brother weighed $7\frac{1}{6}$ pounds when born. Since then, her was gained $3\frac{1}{4}$ pounds. How much does Rita's baby brother w? Express the weight as a decimal. Texpress the weight as a decimal. Tall the value of a in [4.33a + (-4.23)] + (-1.33a) = 0 A rilateral below is dilated by a scale factor of 3, what will be arimeter? The value of a radius of 16 feet. How far will you travel if you take oes around 5 times? (Round answer to the neorest oes around 5 times? (Round answer to the neorest she uses $7\frac{1}{2}$ cups of flour altogether. How much flour is cake? The same of Gas per in gas prices in six states. What is the mean price of of Gas per ing gas prices in six states. What is the mean price of 3.363 3.63 3.76				Michigan	Maryland	Maine	Average Cost Gallon by Stat	Tina is compai	If the price of is the tax rate	of flour, and there in each	A Ferris Wha a ride that ghundredth)		12.2		If the quac	What is th	Rita's bal brother h weigh nov	Kelly's ca
	3.21		_	3.90	3.78	3.84	t of Gas per	aring gas prices in six states. What is the mean price of	of a sweater is \$24.99 without tax and \$26.99 with tax, what e as a percent?	$\cos 3$ cakes for a party. Each cake calls for an equal amount $1 \sin 3 \cos 7 \cos 3 \cos$	heel has a radius of 16 feet. How far will you travel if you take goes around 5 times? (Round answer to the <i>nearest</i>	16 II	X	12ft	adrilateral below is difated by a scale factor of 3, what will be perimeter?	the value of a in [4.33a + (-4.23)] + (-1.33a) = 0	aby brother weighed 7_2^4 pounds when born. Since then, her has gained 3_2^4 pounds. How much does Rita's baby brother ow? Express the weight as a decimal.	$\frac{1}{2}$ range to $\frac{1}{2}$ miles per $\frac{1}{8}$ gallon of gas. Find the unit rate.

10	Susan and her brother Tommy want to split a triangle shaped cookie. The cookie has a base of 6 inches and a height of 4 inches. Calculate the area of the cookie that each child will receive.
	A football field has a total length of 120 yards but only 100 yards from goal-line to goal-line. It also has a width of 50 yards. What is the total area of the football field from goal-line to goal-line?
	A round clock has a radius of 5 cm. What is the approximate area of the clock? Use 3.14 for π .
	Solve $-3x + 2 = -7$
	$3+4^2+2-5$
	between Cary and Chapel Hill is 9 inches, how many miles apart are the two cities?
	The scale on the map is 1 inch for every 2.5 miles. If the distance on the map
	If $x = 4$ and $y = 3$, evaluate $xy - 2x$
	TIC Motival train library
	Mike's football team runs for 10 yards on the first play of the game. The second play, the quarterback gets sacked for a loss of 6 yards. On the third play, the quarterback completes a pass for 5 yards. On the fourth play, the quarterback is sacked again for a loss of 17 yards. How far has the football team moved?
	Find the area of the shaded region. The square has a side length of 5 meters.