

Name: _____

Due Date: _____

TOPIC 8 STUDY GUIDE

1. What expression can be used to represent the phrase "three times the amount of money"?
2. If Lisa travels an average of 65 miles per hour for 8 hours, she will travel 8×65 miles. Which of the following is equal to 8×65 ?
 - a. $(8+60) \times (8+5)$
 - b. $(8+60) - (8+5)$
 - c. $(8 \times 60) + (8 \times 5)$
 - d. $(8 \times 60) - (8 \times 5)$
3. Ryan had 18 more shots on goal during the soccer season than Peyton, who had 36. Evaluate the expression $x + 18$ for $x=36$.
4. Jerry has a coupon for \$3 off the price of a shirt. If p represents the original price of a shirt, what expression tells Jerry's cost, before tax, when he uses the coupon?
 - a. $p \div 3$
 - b. $3 - p$
 - c. $p - 3$
 - d. $p + 3$
5. The expression $f - 3$ represents the number of years Mark has taken piano lessons when Fatima has taken lessons for f years. How many years of lessons will Mark have when Fatima has 9 years? Show your work.

6. What is the first step in evaluating the expression shown below:

$$8 - 7 + 12 \div (3 + 1)$$

- a. Add 3 and 1
- b. Divide 12 by 3
- c. Add 7 and 12
- d. Subtract 7 from 8

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7. What value of n makes the equation true?

$$15 \times 110 = (15 \times 100) + (15 \times n)$$

$n =$ _____

8. The cost for n students to attend a workshop is $7n + 12$ dollars. What is the cost for 6 students to attend? Show your work.

9. Tennessee, New Mexico, and Michigan have a total of 27 representatives in the U.S. House of Representatives. Michigan has 15 representatives and Tennessee has 3 times as many as New Mexico. How many representatives does the state of Tennessee have? Show your work/picture!

10. Write the expression represented by " n students divided into groups of 6".

11. What is the value of the expression $6 + (13 - 1) \div 4 + 2$?

12. Alex starts with \$5 and saves \$10 each week. Nora starts with \$14 and saves \$10 each week. Complete the chart to show how much money each has saved at the end of each week. What is the relationship between how much money each has at the end of each week?

	Alex's Savings	Nora's Savings
Start	\$5	\$14
1 st Week		
2 nd Week		
3 rd Week		
4 th Week		
5 th Week		

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13. Jannah purchased flowers to plant in her garden. She planted 2 flowers in each of her 5 garden beds. If t represents the total number of flowers, write an expression that shows how many flowers she planted.

14. Joshua is watching a parade. He makes the table below to record his observations.

	Row 1	Row 2	Row 3	Row 4	Row 5
Drummers	3	6	9	12	15
Trumpeters	6	12	18	24	30

What is the relationship between the number of drummers and the number of trumpeters in each row?

15. What is the value of $7 + 3m - 2$ when $m=4$?

16. The table shows the cost to board Lucy's dog at a kennel. Write the expression that shows the cost to board the dog for d days?

Number of Days	Total Cost
3	\$36
4	\$48
5	\$60

Use the expression you wrote in number 16 to answer 17 and 18.

17. Which operation do you perform first in simplifying this expression?

18. Write the simplified form of the expression.