Test Review, 2.4, 2.5, 2.6, 2.7 **Name** Key
Retest Evaluate Expressions with Exponents **Date** _____

Solve each equation. Check your work

1. $48 = q + 22$
$-22 \quad -22$
$26 = q$

2. $n - 66 = 32$
$+66 \quad +66$
$n = 98$

3. $\frac{6m}{6} = \frac{72}{6}$
$m = 12$

4. $6 \cdot \frac{x}{6} = 7 \cdot 6$
$x = 42$

5. $21 + n = 34$
$-21 \quad -21$
$n = 13$

6. $\frac{63}{7} = \frac{7x}{7}$
$9 = x$

7. $5 \cdot \frac{x}{5} = 9 \cdot 5$
$x = 45$

8. $32 + n = 64$
$-32 \quad -32$
$n = 32$

9. $\frac{90}{10} = \frac{10x}{10}$
$9 = x$

Error Analysis

10. Suzie made an error when solving an equation. Explain her error.

Suzie's work:

$\frac{m}{6} = 12$

$\div 6 \quad = \div 6$

$m = 2$

She should have multiplied by 6 on both sides instead of dividing.

Choose the equation that models the situation.

N = 4 • F

11. Nancy has four times as many cookies as her friend. If Nancy has 16 cookies, how many cookies does her friend have?

16 = 4 • f

a. $4 + n = 16$

b. $4n = 16$

c. $4 \cdot 16 = n$

d. $\frac{n}{4} = 16$

S = 3 • b

12. Seth has three times as many marbles as his brother. If Seth has 12 marbles, how many marbles does his brother have? **Write an equation and solve.**

$\frac{12}{3} = \frac{3 \cdot b}{3}$

4 = b
marbles

13. Calvin is 6 years ***younger*** than his brother. If Calvin is 16, how old is his brother?

C = b − 6

16 = B − 6

a. $n + 6 = 16$

b. $n + 16 = 6$

c. $n - 6 = 16$

d. $16 - 6 = n$

B = 3 + f

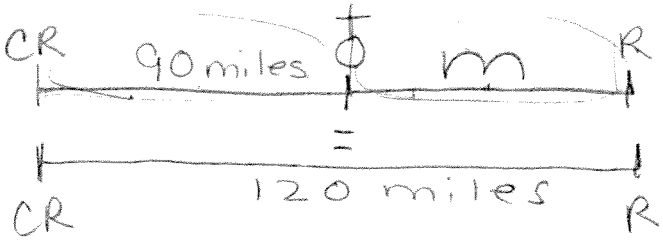
14. Beth is 3 years ***older*** than her friend. If Beth is 10, how old is her friend? **Write and equation and solve.**

$10 = 3 + f$
$-3 \quad -3$
$7 = f$

friend is 7 yrs old

Write an equation to model the situation. You do NOT need to solve.

15. Michael drove 90 miles from Colby Ridge to Orville. Then he drove several more miles from Orville to Redenbacher. The distance from Colby Ridge to Redenbacher is 120 miles. What distance did Michael drive from Orville to Redenbacher? Use *m* to represent the distance from Orville to Redenbacher.



Equation: 90 + m = 120

16. Zander bought a ticket to the fair for $8. He has $33 left. How much money did Zander have before he bought the fair ticket? Use d to represent the amount of money Zander had before he bought the fair ticket.

$d - 8 = 33$
$+8 \quad +8$
$d = 41$

Equation: $d - 8 = 33$

$41

17.

m	$m \div 10 + 5$
50	10
60	11
70	12

$(50 \div 10) + 5$
$(60 \div 10) + 5$
$(70 \div 10) + 5$

18.

f	$f \cdot 6$
11	$\cdot 6$ 66
12	$\cdot 6$ 72
15	$\cdot 6$ 90

Choose the expression that best describes the directions.

19. *Directions: Think of a number, divide it by 7 and then add 10.*

n ÷ 7 + 10

a. $x \div 7 + 10$

b. $x + 10 \div 7$

c. $7x + 10$

d. $10 \div x + 7$

Write an expression.

20. Let y represent the number of dogs that Izzy has. If Jason has three times as many dogs as Izzy, write an expression to show the number of dogs Jason has.

3,

Expression: $3 \cdot y$ or $3y$

Choose the phrases that match the expression. Circle ALL that apply.

21. $525 \div 5$

a. *the quotient of 525 and 5* $525 \div 5$

b. *525 divided by 5* $525 \div 5$

c. *the product of 525 and 5* $525 \cdot 5$

d. *divide 525 into 5 groups* $525 \div 5$

e. *5 divided by 525* $5 \div 525$

f. *5 divided into 525 groups* $5 \div 525$

22. A rectangle has a width of 4 feet and an area of 60 square feet. Find the length of the rectangle.

Equation: $L \cdot 4 = 60$

$\div 4 \quad \div 4$

$L = 15$

Length = 15 feet

Length x Width = Area

$L \cdot 4 = 60$