

Name _____

1. Round $\sqrt{385,217}$ to the nearest

a) hundred thousand 400,000

b) thousand 385,000

2. Estimate the product using front-end rounding.

$$\begin{array}{r} \sqrt{672} \times \sqrt{1082} \\ 672 \times 1082 \\ \hline 700 \times 1000 = 700,000 \end{array}$$

3. Evaluate the exponential expressions, and write in standard form

a) $(-3)^2$
 $(-3)(-3) = 9$

b) -7^2
 $-7 \cdot 7 = -49$

c) $(-2)^3$
 $(-2)(-2)(-2) = -8$

4. Find the quotients:
 a) $0 \div 24 = 0$

b) $\frac{-35}{-35} = 1$

c) $\frac{0}{-9}$ undefined

5. Write "yes" or "no" after each of the following to state its divisibility.

Is 3585 a) divisible by 2? **no** - ends in odd #

b) divisible by 3? $3 + 5 + 8 + 5 = 21$ **yes**

c) divisible by 5? **yes** ends in 5

6. Write $>$ or $<$ between each pair of numbers to correctly express the inequality:

a) $-25 < 3$

b) $-11 > -40$

7. Simplify

a) $|-61|$ 61

b) $-|17-8|$ $-|9| = -9$

8. Simplify: $-60 + 32$

-60
 $+32$

 (-28)

opposite
neg. demand

9. Simplify: $44 - (-12)$

$44 + 12 = 56$

10. Simplify: $-(-1)(2)(-3)(4)(-10)$

$(+) = 1 \cdot 2 \cdot 3 \cdot 4 \cdot 10 = 240$

11. A bank account is opened, and the following transactions are made: deposit \$500, withdraw \$80, deposit \$30, withdraw \$220

a) Write each transaction as a signed number.
 $+500 - 80 + 30 - 220$

b) What is the final balance in the account?

Pos
 500
 30

 530

Neg
 -220
 -80

 $-300 = 2300$

$$= 8.7 = 56$$

$$2(-2)^2(7) = 2(4)(7)$$

15. Evaluate the expression: $2a^2b$ for $a = -2$, $b = 7$

b) If 7 pay-per-view movies are viewed, what is the total cost for that month?

$$89 + 5(7) = 89 + 35 = 124$$

a) Let m represent the number of pay-per-view movies viewed in a month, and write an expression for the total monthly cost

$$89 + 5m$$

14. A cable company charges \$89 each month for service, plus the cost of pay-per-view movies, which are \$5 each.

$$= -2$$

13. Simplify: $\frac{-6(8-5)}{|40-72|}$

$$= \frac{-6(3)}{|40-72|} = \frac{-18}{|1-9|} = \frac{-18}{9}$$

12. Simplify: $7 + 2(-12) + 4^2$

$$= 7 - 24 + 16 = 23 - 24 = -1$$

$$Lp = 35; p = 5$$

$$Lp + 8 = 43$$

$$2p + 8 + 5p = 43$$

20. Solve: $2(p+4) + 5p = 43$

$$35 = 5y; y = 7$$

$$16 = -19 + 5y$$

$$+3y$$

19. Solve: $16 - 3y = -19 + 2y$

$$X = 23$$

$$2x = 46$$

$$+31 + 31$$

18. Solve: $2x - 31 = 15$

$$\frac{3}{3}$$

17. Solve: $3y = -18$

$$y = -6$$

$$-8b - 22 + 5b = -3b - 22$$

16. Simplify the expression: $-2(4b + 11) + 5b$