Expressions Mid Chapter Test STUDY GUIDE Name: _____

1. What is the value of $(6^3 - 16) + 7(2^4)$?

$(216-16)+7(16)$

$200+7(16)$

$200+112 = 312$

2. Which expression has the greatest value if x = 50?

a. 20/x
b. 2/x
c. 20 – x
d. 2 – x

(a) $\frac{20}{50} = \frac{2}{5}$ (c) $20-50 = -30$

(b) $\frac{2}{50} = \frac{1}{25}$ (d) $2-50 = -48$

3. Zara buys p pounds of apples for 35 cents per pound. She pays the clerk with a fifty-dollar bill. The clerk subtracts the total cost of the apples from the fifty-dollar bill to determine the amount of change to give Zara. Which expression represent the amount of change Zara should receive?

a. 0.35p – 50
b. 50 – 35p
c. p – 50
d. 50 – 0.35p

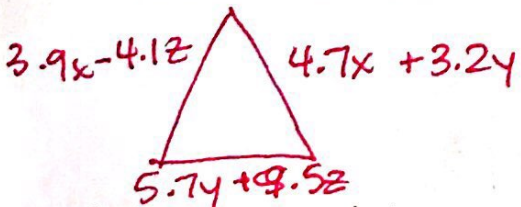
$50 minus ($0.35 per pound of apples)

4. Which expression is equivalent to $15y + 8 - 2y - 14$

a. 17y + 22
b. 13y + 22
c. 13y – 6
d. 13y + 6

$13y - 6$

5. A triangle has side lengths of (4.7x + 3.2y) inches, (3.9x – 4.1z) inches and (5.7y + 9.5z) inches. What is the perimeter of the triangle?



$4.7x + 3.2y + 3.9x - 4.1z + 5.7y + 9.5z$

$8.6x + 8.9y + 5.4z$

6. James owns a candy store.
   - He sells Jolly Rancher for $0.30 each and Starbursts for $0.45 each.
   - James buys each Jolly Rancher for $0.15 each and each Starburst for $0.20 each.

Which expression represents how much money James gains from selling *j* Jolly Ranchers and *s* Starbursts?

a. $0.45j + $0.65s
b. $0.75js
c. $0.65s - $0.45j
d. $0.15j + $0.25s

JR 0.30 − 0.15 = $0.15 made per JR

SB 0.45 − 0.20 = $0.25 made per SB

7. What is the value of $(-7m + ½)^3$ if m = 0?

$(-7(0) + ½)^3$

$(0 + ½)^3$

$(½)^3 = \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{8}$

8. Kim bought green beans at the market. Green beans cost $1.28 per pound.
   a. Part A: Write an expression to represent the cost of x pounds of green beans.

$1.28x$

   b. Part B: How much would it cost to buy 3.6 pounds?

$1.28(3.6) = 4.608 \approx \$4.61$

9. What is the value of each expression?
   a. $2,398 \div 10 =$ 239.8
   b. $2,398 \div 10^2 =$ 23.98
   c. $2,398 \div 10^3 =$ 2.398
   d. $2,398 \div 10^4 =$ .2398
   e. $2,398 \div 10^5 =$ .02398

10. Sally is using the expression $\frac{g}{12h}$ in class. What is the value of the expression when g = -12 and h = $\frac{1}{3}$.

$\frac{-12}{12(⅓)} = \frac{-12}{4} = -3$

11. Find the value of this expression: $12\frac{2}{5} + 3^4 \times \left(6\frac{1}{5} - 3\right)$

$12\frac{2}{5} + 3^4 \cdot 3\frac{1}{5}$

$12\frac{2}{5} + 81 \cdot 3\frac{1}{5}$

$12\frac{2}{5} + 259\frac{1}{5} = 271\frac{3}{5}$

12. Identify the parts of the expression.

$9m - 7m^2 + 14$

Terms: 9m, $-7m^2$, 14

Like Terms: none

Coefficients: 9, -7

Constants: 14

13. Identify the parts of the expression.

$-9x + 6y - 8 - y$

Terms: $-9x$, $6y$, -8, $-y$

Like Terms: $6y$, $-y$

Coefficients: -9, 6, -1

Constants: -8