# Expressions and Equations Homework Problems

Name: _____     Date: _____

1. Craig went bowling with $25 to spend. He rented shoes for $5.25 and paid $4.00 for each game. What was the greatest number of games Craig could have played?

   A.  4                    B.  5                    C.  6                    D.  7

2. Which expression is equivalent to $(7x - 5) - (3x - 2)$?

   A.  $10x - 7$            B.  $10x - 3$            C.  $4x - 7$            D.  $4x - 3$

3. For her cell phone plan, Heather pays $30 per month plus $0.05 per text. She wants to keep her bill under $60 per month. Which inequality represents the number of texts, $t$, Heather can send each month while staying within her budget?

   A.  $t < 600$            B.  $t > 600$            C.  $t < 1,800$            D.  $t > 1,800$

4. Solve for $x$.

$$0.5x + 78.2 = 287$$

   A.  $x = 104.4$          B.  $x = 417.6$          C.  $x = 495.8$          D.  $x = 730.4$

5. Katie bought 4 sweaters that each cost the same amount and 1 skirt that cost $20. The items she bought cost a total of $160 before tax was added. What was the cost of each sweater?

   A. $20          B. $35          C. $40          D. $45

6. Doug earns $10.50 per hour working at a restaurant. On Friday he spent $1\frac{3}{4}$ hours cleaning, $2\frac{1}{3}$ hours doing paperwork, and $1\frac{5}{12}$ hours serving customers. What were Doug's earnings?

   A. $46.97          B. $47.25          C. $53.00          D. $57.75

7. Mr. Gonzales has only $42.50 to spend at a clothing store. He wants to buy a shirt that costs $29, including tax, and some bracelets that cost $4.50 each, including tax.

   Write an equation to determine $x$, the maximum number of bracelets Mr. Gonzales could buy.

   Solve the equation to determine the number of bracelets Mr. Gonzales could buy.

8. Altitude above sea level is given in positive values and below sea level is given in negative values. Which situation describes a hiker in Death Valley stopping at an altitude of 0 feet?

   A. The hiker starts at −10 feet then increases altitude by 10 feet.

   B. The hiker starts at −10 feet then decreases altitude by 10 feet.

   C. The hiker starts at 10 feet then increases altitude by 10 feet.

   D. The hiker starts at 0 feet then decreases altitude by 10 feet.

9. Evaluate.

$$\left(-\tfrac{7}{10} + 0.15\right) \div (-0.125)$$

A. −6.8      B. −4.4      C. 4.4      D. 6.8

10. A pile of newspapers in Ms. McGrath's art class was $17\frac{3}{4}$ inches high. Each consecutive week, for the next 5 weeks, the height of the pile of newspapers increased by $8\frac{7}{12}$ inches. What was the height, in inches, of the pile after 3 weeks?

A. $25\frac{3}{4}$      B. $26\frac{1}{4}$      C. $42\frac{1}{4}$      D. $43\frac{1}{2}$

11. Harper has $15.00 to spend at the grocery store. She is going to buy bags of fruit that cost $4.75 each and one box of crackers that costs $3.50.

Write and solve an inequality that models this situation and could be used to determine the *maximum* number of bags of fruit, $b$, Harper can buy.

12. Members of a baseball team raised $967.50 to go to a tournament. They rented a bus for $450.00 and budgeted $28.75 per player for meals. They will spend all the money they raised.

Write and solve an equation that models this situation and could be used to determine the number of players, $p$, the team could bring to the tournament.

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13. What is the value of the expression below?

$$-0.75 - \left(-\frac{2}{5}\right) + 0.4 + \left(-\frac{3}{4}\right)$$

A. $-1.5$          B. $-0.7$          C. $0.8$          D. $2.3$

14. Which expression is equivalent to the expression $-3(4x - 2) - 2x$?

A. $-8x$          B. $-16x$          C. $-14x - 2$          D. $-14x + 6$

15. Ms. Hernandez has $100 to spend on parking and admission to the zoo. The parking will cost $7, and admission tickets will cost $15.50 per person, including tax. Write and solve an equation that can be used to determine the number of people that she can bring to the zoo, including herself.

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