Algebra Bellwork - October 25, 2011

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How Many M&M's are sold each day in the United States?

1. $\frac{2}{3}x - 4 = 6$

$+4 \quad +4$

$\frac{3}{2} \cdot \frac{2x}{3} = \frac{10}{1} \cdot \frac{3}{2}$

$x = \frac{30}{2}$

$x = 15$

2. A 24-oz bottle of soda costs $1.44. What is the cost per ounce (cents per ounce)?

$\frac{\$}{\text{oz.}}$

$\frac{\$1.44}{24}$ | $\frac{\$.06}{1\ \text{oz.}}$

3. $59 + 8 + 5m = 77$

$67 + 5m = 77$

$-67 \qquad -67$

$\frac{5m}{5} = \frac{10}{5}$

$m = 2$

4. Emilio went to the mall and bought a t-shirt for $17.50 and 4 hats. The total cost was $53.50. Write and solve an equation to find the price of each hat.

x = price of a hat

$\$17.50 + 4x = \$53.50$

$-17.50 \quad -17.50$

$4x = \$36$

$\frac{4x}{4} = \frac{\$36}{4}$

$x = \$9$

5. $3x - 6 = 4x - 5$

$-3x \quad -3x$

$-6 = x - 5$

$+5 \quad +5$

$-1 = x$

5. $3x - 6 = 4x - 5$

$+6 \quad +6$

$3x = 4x + 1$

$-4x \quad -4x$

$-x = 1$

$\frac{-x}{-1} = \frac{1}{-1}$

$x = -1$

6. $3(y-4)=9$

$3y-12=9$

$+12 \quad +12$

$\frac{3y}{3}=\frac{21}{3}$

$y=7$

7. Find the value of y.

$-6y + 14 + 4y = 32$

$-2y + 14 = 32$

$-14 \quad -14$

$-2y = 18$

$\frac{-2y}{-2} = \frac{18}{-2}$

$y = -9$

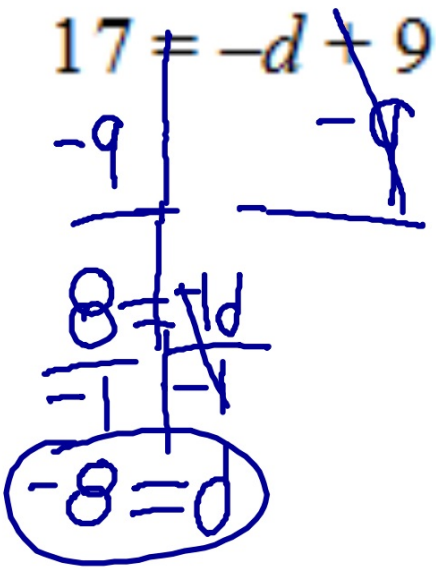
8. $-6 = \frac{x}{8} + 4$

$-4 \qquad -4$

$-10 = \frac{x}{8} \cdot 8$

$-80 = x$

9. $17 = -d + 9$



10. The sum of two consecutive integers is 49. **Write an equation** AND **find the values** of the two integers.

$x + x + 1 = 49$

$2x + 1 = 49$

$-1 \quad -1$

$2x = 48$

$\frac{2x}{2} = \frac{48}{2}$

$x = 24$, 25

Solve the proportion.

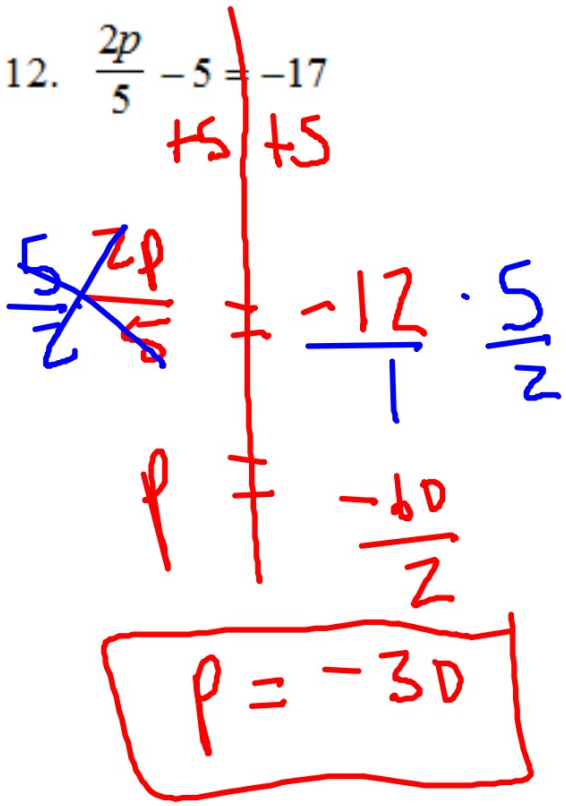
11. $\frac{4}{6} = \frac{14}{x}$

$\frac{4x}{4} = \frac{84}{4}$

$x = 21$

Solve the equation.

12. $\frac{2p}{5} - 5 = -17$



Solve

13. $6d + d + 6d - 3 = 4d$

4-13

$13d - 3 = 4d$

$-13d \quad -13d$

$\frac{-3}{-9} = \frac{-9d}{-9}$

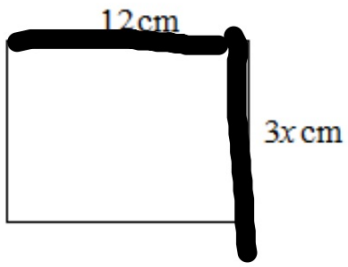
$\frac{1}{3} = d$

14. A car is driving at a uniform speed of 60 miles per hour. How far does the car travel after 3 hours?

$$\left(\frac{60 \text{ mi}}{1 \text{ hr}}\right)\left(3 \text{ hrs}\right) = 180 \text{ mi}$$

15. The **perimeter** of the rectangle is 42 cm. Find the value of x.
Hint: **perimeter** = 2L + 2W

42



$42 = 2(12) + 2(3x)$

$42 = 24 + 6x$

$-24 \quad -24$

$18 = 6x$

$3 = x$