

FIND THE ERRORS - ALGEBRA

SHOW ALL WORK and write your answers on the lines to the right.

1. a. $(-3 \cdot -2)^2 = -(6)^2 = -36$

$$\frac{-36}{12}$$

b. $(-3)(-2)^2 = (-3)(-4) = 12$

2. Evaluate $5t + (r + 2)^2 - s$ when $r = 4$, $s = -3$ and $t = 10$

$$5(10) + (4+2)^2 - (-3) \\ 50 + 16 + 4 - 3 = 67$$

$$\underline{67}$$

3. Simplify: $-2x + 5(4x - 2) + 1$

$$-2x + 20x - 10 + 1 \\ 18x - 9 \\ x = \frac{9}{18} \\ x = \frac{1}{2}$$

$$\underline{x = \frac{1}{2}}$$

4. Find the solution to the equation:

$$-4(y - 5) = 5(y - 4)$$

$$-4y + 20 = 5y - 20$$

$$-4y = 5y$$

$$-4y + 4y = 5y + 4y$$

$$0 = 9y$$

$$\frac{0}{9} = \frac{9y}{9}$$

$$0 = y$$

$$\underline{y = 0}$$

5. Find the solution to the equation:

$$\frac{y}{4} - \frac{1}{4} = \frac{2}{3} - y \quad \text{mult by 12}$$

$$\frac{y}{4} \cdot 12 - \frac{1}{4} \cdot 12 = \frac{2}{3} \cdot 12 - y \cdot 12$$

$$3y - 3 = 8 - 12y$$

$$15y = 11$$

$$\frac{15y}{15} = \frac{11}{15}$$

$$y = \frac{11}{15}$$

$$\underline{y = \frac{11}{15}}$$

6. The formula gives the correspondence between women's shoe sizes in the United States and those in Italy.

S is the size in Italy and x is the size in the United States.

What would be the US size for an Italian size of 30?

$$S = 2(x + 12)$$

$$S = 2(30 + 12)$$

$$= 2(42)$$

$$= 84$$

$$\underline{84}$$