

Solving Equations w/ Distributive Property

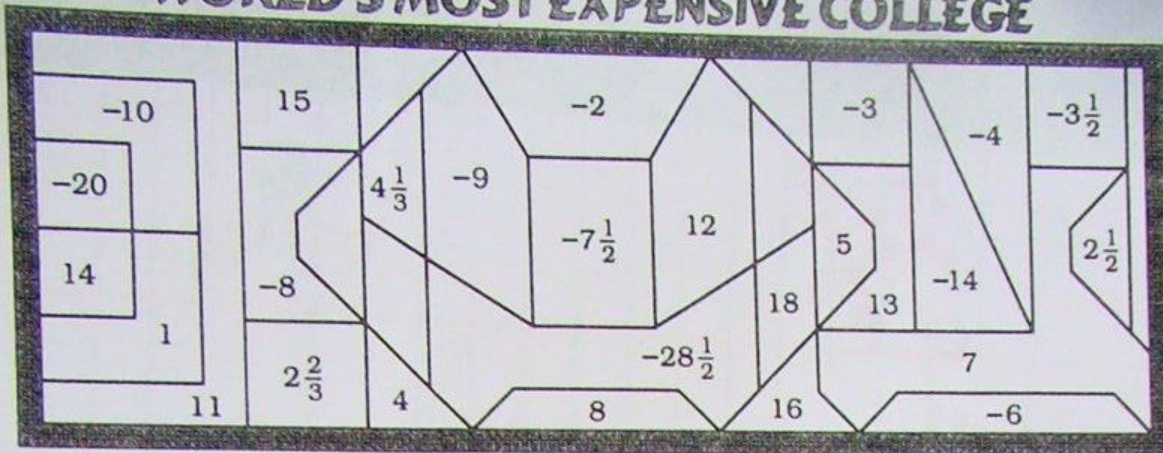
First
use
dist. prop.

$$\begin{aligned} \textcircled{1} \quad 2x + 4(-x + 3) &= 18 \\ \underline{2x + -4x + 12} &= 18 \\ -2x + 12 &= 18 \\ \underline{-12 \quad -12} & \\ -2x &= 6 \\ \underline{-2 \quad -2} & \\ \boxed{x = -3} & \end{aligned}$$

$$\begin{aligned} \textcircled{2} \quad \frac{5}{2} \cdot \frac{2}{5} (6x - 8) &= -\frac{10}{1} \cdot \frac{5}{2} \\ \underline{6x - 8} &= -25 \\ \underline{+8 \quad +8} & \\ 6x &= -17 \\ \underline{6 \quad 6} & \\ \boxed{x = \frac{-17}{6} \text{ or } -\frac{25}{6}} & \end{aligned}$$

Work must be shown on notebook paper

WORLD'S MOST EXPENSIVE COLLEGE



Shade in the area containing each solution.

1. $5x + 2(x + 4) = 64$

2. $9(y - 2) + 4 = 31$

3. $7 + 4(2a + 15) = -13$

4. $6(n - 5) - 11n = 0$

5. $20 = 8 + 3(12 + 4x)$

6. $-2(w - 7) + 10w = 34$

7. $9y - 4(y + 5) = 40$

8. $10 - 3(m - 2) = 8$

9. $16d - (4 - 5d) = -67$

10. $7(6x - 1) + x = 36$

11. $11 - 2(8 + 3p) = 7^2$

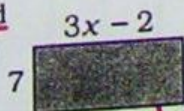
12. $\frac{1}{4}(5b + 11) = 19$

13. $\frac{2}{7}(4m - 18) = 12$

14. $75 = 3(-10t - 3) + 6t$

15. $-\frac{5}{6}(9 + 2x) = 40$

16. Write an equation and solve for x if the area of this rectangle is 133 square units.



$$7(3x - 2) = 133$$

17. The Big Screamer Coaster carries 92 people altogether. Some of its cars carry 4 passengers, and the rest carry 6 passengers. There are three less 6-passenger cars than 4-passenger cars. How many 4-passenger cars are there?

F : # of 4-passenger cars
 $F - 3$: # of 6-passenger cars

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$$4F + 6(F - 3) = 92$$