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6. Solve by inspection.

a) $-7g = 56$ **b)** $-81 = 9p$

c) $\frac{-n}{5} = -6$ **d)** $-7 = \frac{b}{3}$

7. Use models to solve each equation. Show your thinking.

a) $-9 = 3t$

b) $\frac{b}{4} = -2$

8. By what number would you divide both sides of the equation to solve it?

a) $14 = -7z$ **b)** $-8g = -64$

9. Solve each equation using the opposite operation. Check your answer.

a) $5a = -25$

b) $-63 = -7k$

10. By what number would you multiply both sides of the equation to solve it?

a) $\frac{x}{5} = -3$ **b)** $-9 = \frac{d}{-4}$

11. Show whether $y = 18$ is the solution to each equation.

a) $72 = \frac{y}{-4}$ **b)** $-9 = -2y$

c) $-3 = \frac{y}{-6}$ **d)** $2y = 36$

12. The cost of an adult ticket for a concert is three times the cost of a child's ticket. If an adult ticket costs $48 what is the cost for a child's ticket?

a) Write an equation to represent this problem. What does your variable represent?

b) Solve the equation. Verify your answer.

13. An LED light bulb lasts 50 times longer than an incandescent light bulb.

a) Write an equation to represent this situation.

b) If an incandescent light bulb lasts 1000 hours, how long does an LED light bulb last? Show your thinking.

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8. Solve the equation. Check your solution.

a) $2x + 5 = 11$

b) $4p + 3 = 19$

c) $-25 = -6a - 43$

d) $15 = -11d - 18$

9. The Hornets won 19 games. This is 5 less than 4 times the number of games the Vampires won.

a) Let v represent the Vampires' wins. What equation models this situation? Explain your thinking.

_____

_____

_____

b) How many games did the Vampires win?

10. Show whether $x = 5$ is the solution to each equation.

a) $4x + 6 = -20$ **b)** $-5 - 2x = -15$

c) $8x - 4 = 36$ **d)** $13x + 12 = 77$

11. The length of a square's side is 10 cm. This square's perimeter is 7 cm more than the perimeter of an equilateral triangle.

a) Let s represent the length of one side of the triangle. What equation models this situation?

b) Solve the equation to find the length of the triangle's sides. Verify your answer.

12. A chalet rents for $150 plus $72 per person for a weekend.

a) Write an equation to model this situation.

b) How much will it cost 16 people to rent the chalet for one night?

c) If the group budgets $1950 for the chalet rental, how many people can stay for the weekend?

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4. What are the first and second operations you should perform to solve each equation?

a) $\frac{f}{6} + 2 = -4$ b) $\frac{r}{-3} - 6 = 7$

c) $12 = 7 + \frac{z}{-5}$ d) $\frac{k}{11} - 12 = 6$

5. Solve each equation.

a) $\frac{d}{-4} - 5 = -3$ b) $4 + \frac{n}{2} = 20$

c) $-6 = \frac{b}{-3} + 11$ d) $\frac{p}{13} - 2 = -3$

6. Show whether $h = 12$ is the solution to each equation.

a) $-6 = \frac{h}{-4} - 3$ b) $5 = 11 - \frac{h}{2}$

c) $\frac{-h}{12} + 8 = 9$ d) $\frac{h}{3} - 1 = 3$

7. Rick saved $400 to buy a pair of skis. On Rick's birthday, his brother Jon gave him one eighth of his savings. Including the gift, Rick then had $475. Let j represents Jon's total savings. Write and solve an equation to determine Jon's savings before he gave Rick the gift.

8. In the following formula, f is the speed that a peregrine falcon can dive in km/h, and c is the speed of a cheetah in km/h: $\frac{f}{5} + 30 = c$. If the top speed of a cheetah is 100 km/h, how fast can a peregrine falcon dive? Show your thinking.

9. The discounted price of an airplane ticket is one third of the regular price, plus $137 in taxes and airport fees.

a) Write an equation to represent this situation.

b) If the discount ticket to Paris costs $349, what is the regular price?

c) If the regular ticket price to Vancouver is $699, what will a discount ticket cost?

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6. Model and then solve each equation. Check your solution.

a) $4(t - 5) = 8$

b) $5(r + 7) = -55$

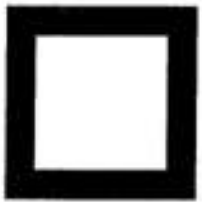
7. Solve each equation. Check your answer.

a) $-3(x - 8) = 12$

b) $600 = 4(s + 4)$

c) $2(x - 3) = 6$

8. Beth would like to put a 2-m wide grass border around a square garden that has a perimeter of 44 m.



a) What equation models this situation?

b) If she wants a fence around the outside of the grass border, what length of fencing will she have to buy?

9. Aaron is driving to his friend's place 180 km away. If he can average a speed that is 5 km/h more than his current speed and then triple that, he will arrive in two hours.

a) Using s for his current speed, what equation models this situation?

b) Determine Aaron's speed.