

Practice A

For use with pages 85–89

Write the verbal sentence as an equation.

1. The sum of x and 5 is 13.
2. The difference of 10 and x is 4.
3. The product of -3 and x is 18.
4. The quotient of 20 and x is -5 .

Tell whether the given value of the variable is a solution of the equation.

5. $x + 14 = 5$; $x = 9$
6. $24 - y = 18$; $y = 6$
7. $-42 = 7a$; $a = -6$
8. $\frac{c}{3} = -12$; $c = -4$

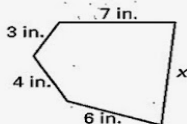
Match the equation with the corresponding question. Then solve.

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|------------------------|--|
| 9. $m + 3 = 18$ | A. 3 equals what number plus 18? |
| 10. $3m = 18$ | B. What number plus 3 equals 18? |
| 11. $3 = m + 18$ | C. What number divided by 3 equals 18? |
| 12. $\frac{m}{3} = 18$ | D. 3 times what number equals 18? |

Solve the equation using mental math.

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|-------------------|--------------------|-------------------------|
| 13. $g + 11 = 16$ | 14. $-6 + z = -14$ | 15. $w - 6 = -2$ |
| 16. $-12a = -60$ | 17. $-36 = 4d$ | 18. $\frac{k}{-8} = -7$ |

19. You are serving vegetable lasagna for a dinner party. There will be 15 people at the dinner. Each dish of lasagna will be cut into 6 pieces, and you expect each person to eat 2 pieces. How many dishes of lasagna do you need to make?
- a. Let x represent the number of dishes of lasagna you need. Write an expression for the number of pieces in x dishes of lasagna.
 - b. How many pieces of lasagna do you need to feed 15 people?
 - c. Use your answers from parts (a) and (b) to write an equation that you can use to find the number of dishes of lasagna needed.
 - d. Solve your equation to find how many dishes of lasagna you need.
20. The perimeter of the figure is 28 inches.



- a. Write and simplify an equation that you can use to find x .
- b. Solve your equation. What is the value of x ?