

Chapter 1 Test A

Solve the equation. Justify each step.

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

2. $\frac{z}{4} = 12$

Solve the equation. Determine whether the equation has *one solution*, *no solution*, or *infinitely many solutions*.

3. $5n = -20$

4. $g + 5 = 17$

5. $13 + 3p + 10 = 23 + 3p$

6. $7 + 4y = 39$

7. $3 = t + 11.5 - t$

8. $4x + 8 + 6x - 5 = 33$

9. $5(2c + 7) - 3c = 7(c + 5)$

10. $\frac{3}{2}b + 6 + \frac{1}{2}b = 15 + 2b$

Describe the values of c for which the equation has no solution.

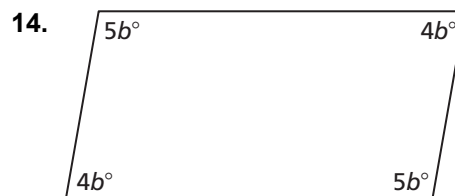
11. $2x - 6 = 2x - c$

12. $|x + 8| = c$

Find the value of the variable. Then find the angle measures of the polygon.



Sum of angle measures: 180°



Sum of angle measures: 360°

Solve the equation.

15. $7n + 3 = 2n + 23$

16. $\frac{1}{2}(6x + 4) = 5(2x - 8)$

17. $\frac{3}{2}(d + 12) = \frac{1}{2}(2d - 6)$

18. $|b - 12| = 15$

19. $|2r + 5| = 3r$

20. $|2k + 6| = |k|$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

Chapter 1 **Test A** (continued)

Solve the literal equation for y .

21. $5x + y = 2$

22. $2x + 5y = 3y + 8$

23. The formula for the volume of a cylinder is $V = \pi r^2 h$.

a. Solve the formula for the height h .

b. A cylinder has a volume of 628 cubic inches and a radius of 10 inches. What is the height of the cylinder rounded to the nearest inch?

24. The measures of two angles of a triangle are each four times the measure of the third angle. What is the measure of the third angle?

25. At a book fair, a tote bag costs \$5 and books cost \$3.50 each. You spend a total of \$19 before taxes. How many books did you buy in addition to the tote bag?

26. For a school play, the maximum age for a youth ticket is 18 years old. The minimum age is 10 years old. Write an absolute value equation for which the two solutions are the minimum and maximum ages for a youth ticket.

27. Your business needs to print brochures. You call two different print shops about prices. Each print shop charges a set-up fee for preparing the brochure and a price per brochure.

a. The total cost is the same for each company. How many brochures is your business printing?

	Brochure set-up fee	Price per brochure
Company A	\$50	\$1.50
Company B	\$75	\$1.00

b. You decide to increase the number of brochures. From which company should you order?

Answers

21. _____

22. _____

23. a. _____

b. _____

24. _____

25. _____

26. _____

27. a. _____

b. _____