

Independent Practice

Equations and Inequalities A.1

Read and solve.

1. What is the value of $\frac{a+b}{2b}$ if $a = 10$ and $b = 15$?
 - A. $\frac{5}{6}$
 - B. $\frac{5}{4}$
 - C. 5
 - D. 25

2. Using the distance formula, $d = rt$, what is the value of t when $d = 3,520$ and $r = 550$?
 - A. 6.4
 - B. 2,970
 - C. 4,070
 - D. 1,936,000

3. What is the solution to $2x - 4 < 6$?
 - A. $x < 1$
 - B. $x < 5$
 - C. $x < 10$
 - D. $x > 1$

4. A rectangle has a perimeter of 60 inches and length of 22 inches. What is the width of the rectangle?
 - A. 176 in.
 - B. 164 in.
 - C. 14 in.
 - D. 8 in.

5. What is the solution to $3(x - 5) \geq 12$?
 - A. $x \leq 1$
 - B. $x \geq -1$
 - C. $x \geq \frac{17}{3}$
 - D. $x \geq 9$

6. What is the solution to $6x + 4 = -20$?

- A. $x = 4$
- B. $x = 13.3$
- C. $x = -2.66$
- D. $x = -4$

7. Mary published her first book. She was given \$10,000.00 and an additional \$0.10 for each copy of the book that sold. Her earnings, d , in dollars, from the publication of her book are given by

$$d = 10,000 + 0.1n$$

where n is the number of copies sold. During the first year Mary earned \$35,000.00 from the publication and sale of her book. How many copies of her book sold in the first year?

- A. 25,000
- B. 35,000
- C. 250,000
- D. 350,000

8. Pauline sells cookie baskets. She charges \$5 for the basket plus \$2 per cookie. If one filled basket sells for \$31, how many cookies are in it?

- A. 13
- B. 15
- C. 18
- D. 20

9. Victor bought a computer for \$1,800. He made a down payment of \$200 and will pay the rest in 5 equal payments. If p represents the amount of each payment, which equation can be used to find this amount?

- A. $\$200p = \$1,800$
- B. $\$1,800 + 5p = \200
- C. $\$1,800 + \$200 = 5p$
- D. $\$1,800 = 5p + \200

10. What is the solution to $6 - 2x < 18$?

- A. $x > -12$
- B. $x > -6$
- C. $x < -6$
- D. $x < 12$

11. What is the solution to $5(2x - 4) = 7x + 10$?

- A. -6
- B. $-\frac{10}{17}$
- C. 7
- D. 10