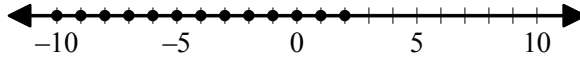
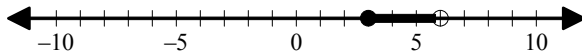


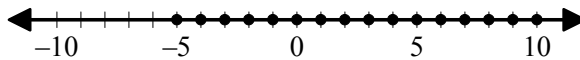
1. Write an inequality whose solution is the graph shown below. Remember to designate the domain.



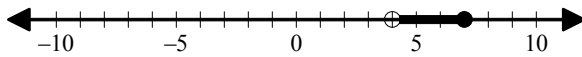
2. Graph the following inequality on a number line: $x + 2 \geq 2$; $D = \{\text{Real numbers}\}$
3. Write a conjunction that describes this graph. Specify the domain.



4. Write an inequality whose solution is the graph shown below. Remember to designate the domain.

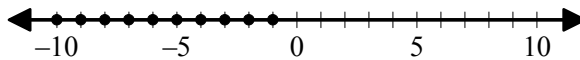


5. Write a conjunction that describes this graph. Specify the domain.

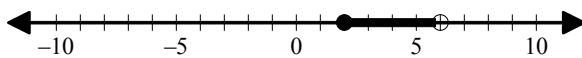


6. Graph the following inequality on a number line: $x + 2 \geq -1$; $D = \{\text{Real numbers}\}$

7. Write an inequality whose solution is the graph shown below. Remember to designate the domain.

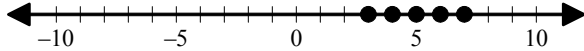


8. Write a conjunction that describes this graph. Specify the domain.



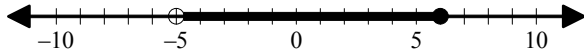
9. Graph the following inequality on a number line: $x + 3 \leq 7$; $D = \{\text{Real numbers}\}$

10. Write a conjunction that describes this graph. Specify the domain.



11. Graph the following inequality on a number line: $x - 5 > -11$; $D = \{\text{Integers}\}$

12. Write a conjunction that describes this graph. Specify the domain.



13. Graph the following inequality on a number line: $x - 4 \leq -5$;
 $D = \{\text{Negative integers}\}$

Simplify:

14. $\sqrt{54}$

15. $\sqrt{50}$ [A] $5\sqrt{2}$ [B] $10\sqrt{15}$ [C] $15\sqrt{2}$ [D] $10\sqrt{2}$

16. Indicate whether each of the following numbers is a rational or an irrational number.

(a) $\sqrt{2+4}$ (b) -4 (c) π (d) $\frac{2}{3}$

17. Simplify: $\sqrt{240}$

18. Indicate whether each of the following numbers is a rational or an irrational number.

(a) $\sqrt{7+9}$ (b) $4 + \pi$ (c) $5.\overline{63}$ (d) $4\sqrt{3}$

19. During the sale, the price of the bicycle was marked down 16 percent. The sale price of the bicycle was \$388. What was the original price of the bicycle?
20. The number of bacteria increased by 210 percent overnight. If there were 15,000 bacteria yesterday, how many bacteria were present this morning?
21. The advertisement of the super blow-out sale caused the number of shoppers to increase by 220 percent. If 250 shoppers were there before the advertisement, how many were there after the advertisement?

Simplify:

$$22. \frac{\frac{b}{d}}{\frac{1}{b+c}}$$

$$23. \frac{\frac{1}{b+c}}{\frac{1}{d}} \quad [\text{A}] \quad bd+cd \quad [\text{B}] \quad \frac{d}{b+c} \quad [\text{C}] \quad \frac{d}{b^2+bc} \quad [\text{D}] \quad \frac{b^2+bc}{d}$$

$$24. \frac{\frac{a}{d}}{\frac{e}{d+a}}$$

25. Solve the system by substitution:

$$2x + y = 11$$

$$3x + 6y = -6$$

26. Solve the system by substitution:

$$x + 6y = 19$$

$$5x - y = 2$$

Add:

$$27. \frac{3}{q-r} - \frac{2}{q}$$

$$28. \frac{4}{r} + \frac{3}{r+s} - 3$$