**1)**



Which inequality corresponds with the graph?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | x > -2 |

 |

|  |  |
| --- | --- |
| C) | x ≤ -2 |

 |
|

|  |  |
| --- | --- |
| B) | x < -2 |

 |

|  |  |
| --- | --- |
| D) | x ≥ -2 |

 |
|  |  |

**2)** Zoey needs at least $30 to buy a gift. She has $12. Which inequality could Zoey use to find out how much more money (*m*) she needs?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 12 ≤ 30 + *m* |

 |

|  |  |
| --- | --- |
| C) | 30 ≤ 12 + *m* |

 |
|

|  |  |
| --- | --- |
| B) | 12 ≥ 30 + *m* |

 |

|  |  |
| --- | --- |
| D) | 30 ≥ 12 + *m* |

 |
|  |  |

**3)** What is the solution to x + 7 = 27?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 189 |

 |

|  |  |
| --- | --- |
| C) | 27 |

 |
|

|  |  |
| --- | --- |
| B) | 20 |

 |

|  |  |
| --- | --- |
| D) | 34 |

 |
|  |  |

**4)** Solve. **x + 4 = 10**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | x = 2 |

 |

|  |  |
| --- | --- |
| C) | x = 6 |

 |
|

|  |  |
| --- | --- |
| B) | x = 3 |

 |

|  |  |
| --- | --- |
| D) | x = 14 |

 |
|  |  |

**5)** Jaylon makes twice as much an hour as Sam. Sam makes x dollars an hour. Write an expression describing how much Jaylon makes an hour.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 2x |

 |

|  |  |
| --- | --- |
| C) | 2 + x |

 |
|

|  |  |
| --- | --- |
| B) | x2 |

 |

|  |  |
| --- | --- |
| D) | x - 2 |

 |
|  |  |

**6)** Tate has 5 more than twice as many pennies as Mia. If Mia has *x* pennies, how many does Tate have?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 2x |

 |

|  |  |
| --- | --- |
| C) $5+\frac{1}{2}x$ |  |

 |
|

|  |  |
| --- | --- |
| B) | 5 + x |

 |

|  |  |
| --- | --- |
| D) | 5 + 2x |

 |
|  |  |

**7)** On Tuesday, Mrs. Myles assigned 7 more problems than she did on Monday. If she assigned *x* problems on Monday, write an expression to represent how many problems Mrs. Myles assigned on Tuesday.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 7x |

 |

|  |  |
| --- | --- |
| C) | 7 - x |

 |
|

|  |  |
| --- | --- |
| B) | 7 + x |

 |

|  |  |
| --- | --- |
| D) | x - 7 |

 |
|  |  |

**8)** Rasheed has half as many jellybeans as Raven. If Raven has Δ number of jellybeans, write an expression to describe how many jellybeans Rasheed has.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 2 - Δ |

 |

|  |  |
| --- | --- |
| C) | Δ÷2 |

 |
|

|  |  |
| --- | --- |
| B) | 2×Δ |

 |

|  |  |
| --- | --- |
| D) | 2÷Δ |

 |
|  |  |

**9)** Evan has 7 less pencils than Isaiah. If Isaiah has Δ pencils, write an expression to describe how many pencils Evan has.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | Δ+ 7 |

 |

|  |  |
| --- | --- |
| C) | Δ - 7 |

 |
|

|  |  |
| --- | --- |
| B) | 7 - Δ |

 |

|  |  |
| --- | --- |
| D) | 7÷Δ |

 |
|  |  |

**10)**



Which quantity does this number line represent?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | less than 5 |

 |

|  |  |
| --- | --- |
| C) | less than 3 |

 |
|

|  |  |
| --- | --- |
| B) | less than 4 |

 |

|  |  |
| --- | --- |
| D) | less than or equal to 4 |

 |
|  |  |

**11)**



Which quantity does this number line represent?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | less than 7 |

 |

|  |  |
| --- | --- |
| C) | greater than 6 |

 |
|

|  |  |
| --- | --- |
| B) | less than 6 |

 |

|  |  |
| --- | --- |
| D) | less than or equal to 6 |

 |
|  |  |

**12)** Solve: x - 5 = 12

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 7 |

 |

|  |  |
| --- | --- |
| C) | 17 |

 |
|

|  |  |
| --- | --- |
| B) | 16 |

 |

|  |  |
| --- | --- |
| D) | 18 |

 |
|  |  |

**13)** Solve for the variable. 8 = y – 3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | -11 |

 |

|  |  |
| --- | --- |
| C) | 5 |

 |
|

|  |  |
| --- | --- |
| B) | -5 |

 |

|  |  |
| --- | --- |
| D) | 11 |

 |
|  |  |

**14)** For which value of x is the equation 2(1 + x) = x + 3 true?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 1 |

 |

|  |  |
| --- | --- |
| C) | 3 |

 |
|

|  |  |
| --- | --- |
| B) | 2 |

 |

|  |  |
| --- | --- |
| D) | 4 |

 |
|  |  |

**15)**



Which inequality matches the graph?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | x > 4 |

 |

|  |  |
| --- | --- |
| C) | x = 4 |

 |
|

|  |  |
| --- | --- |
| B) | x < 4 |

 |

|  |  |
| --- | --- |
| D) | x ≥ 4 |

 |
|  |  |

**16)** For gym class, Gracie keeps a record of how many miles she runs. For the first half of the semester she runs 23 miles, and her grand total at the end of the semester is 50 miles. Write an equation to model this situation.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 23 + x = 50 |

 |

|  |  |
| --- | --- |
| C) | 23 – x = 50 |

 |
|

|  |  |
| --- | --- |
| B) | x – 23 = 50 |

 |

|  |  |
| --- | --- |
| D) | x – 50 = 23 |

 |
|  |  |

**17)** Which inequality is true for x = 2?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 6x + 20 < 29 |

 |

|  |  |
| --- | --- |
| C) | 14x + 10 < 37 |

 |
|

|  |  |
| --- | --- |
| B) | 7x – 10 < 11 |

 |

|  |  |
| --- | --- |
| D) | 15x – 18 < 12 |

 |
|  |  |

**18)** Solve for x**. x + 1.33 = 7.82**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | 6.49 |

 |

|  |  |
| --- | --- |
| C) | 7.49 |

 |
|

|  |  |
| --- | --- |
| B) | 6.52 |

 |

|  |  |
| --- | --- |
| D) | 9.15 |

 |
|  |  |
|  |  |

**19)** Solve for x**. x − 11.39 = 74.36**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
| A) | −85.75 |

 |

|  |  |
| --- | --- |
| C) | 62.97 |

 |
|

|  |  |
| --- | --- |
| B) | −62.97 |

 |

|  |  |
| --- | --- |
| D) | 85.75 |

 |