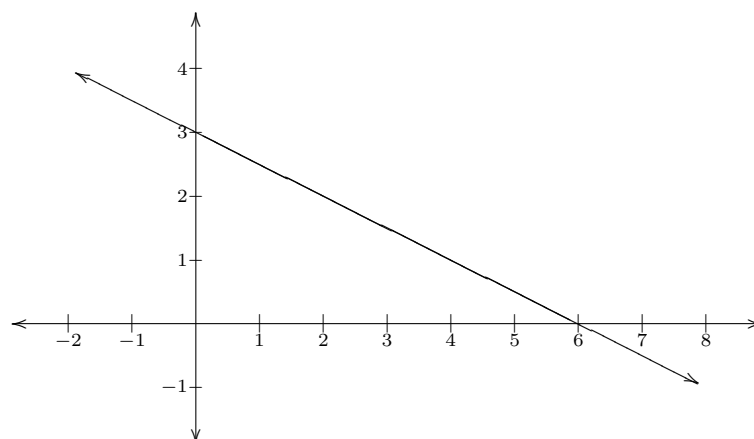


- 1 Evaluate and simplify $\frac{3}{2} + \frac{5}{6}$.
- 2 Evaluate and simplify $3 + 5 \cdot 6^2$.
- 3 Evaluate $\frac{3 \times 10^7}{4 \times 10^4}$ in scientific notation.
- 4 Evaluate and simplify $2x + 3y$ when $x = -2$ and $y = 5$.
- 5 Simplify $2(3x + 1) - 3(4x + 2)$ and write it in standard form.
- 6 Simplify $(12t^2 + t + 5) - (8t^2 + 3t + 3)$ and write it in standard form.
- 7 Give the solution set of $3 < x \leq 7$ in interval notation.
- 8 Solve $t + 4(t - 3) = 3t + 2$.
- 9 Solve $2x + 3 < 4x + 5$.
- 10 If a right prism has height h and its base has area A and perimeter p , then its surface area is given by the formula $S = 2A + ph$. Suppose that you have a right prism with a height of 5 metres and whose base has an area of 9 square metres and a perimeter of 12 metres. What is its surface area?
- 11 To stay awake after a night of grading, I paid \$3.55 for a cup of fancy coffee. This price includes a 9.014% restaurant sales tax. What was the price listed before the tax?
- 12 If Alice drives east at 36 miles per hour while Bob drives west at 24 miles per hour, starting at the same time from the same position, how long will it be until they are 30 miles apart?
- 13 Solve $2x - 3y = 6$ for y .
- 14 Draw a graph of the equation $y = 3x - 6$.
- 15 Find the intercepts of the graph shown below.



- 16 Find the slope of the line passing through the points $(12, 15)$ and $(3, 6)$.

17 Find the equation in slope–intercept form for the line with slope -2 through the point $(7, -3)$.

18 Solve the system of equations

$$\begin{cases} x - 8y = 35, \\ x - 7y = 25. \end{cases}$$

19 Fill in the blank: A(n) _____ consists of two expressions with an equals sign (=) between them.

20 A(n) _____ consists of several terms, each of which is a monomial.

21 A system of equations with no solution is _____.

Answers

1 $\frac{7}{3}$

2 183

3 7.5×10^2

4 11

5 $-6x - 4$

6 $4t^2 - 2t + 2$

7 (3, 7]

8 $t = 7$

9 $x > -1$

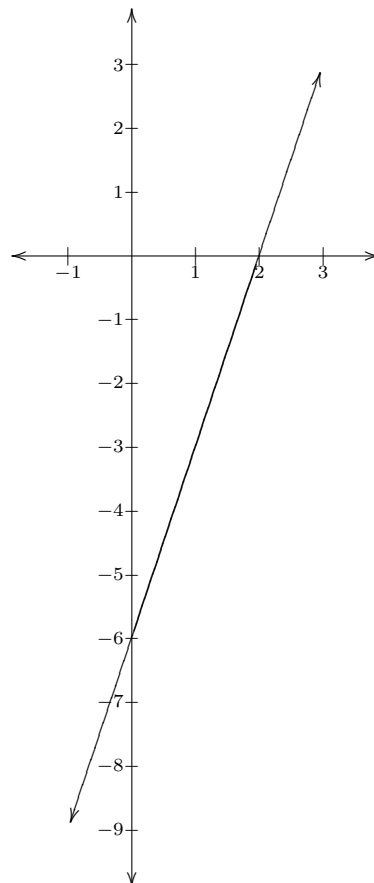
10 78 square metres

11 \$3.26

12 half an hour

13 $y = \frac{2}{3}x - 2$

14



15 (0, 3), (6, 0)

16 1

17 $y = -2x + 11$

18 $x = -45, y = -10$

19 equation

20 polynomial

21 inconsistent