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 $2x + 3 < 4x + 5$.

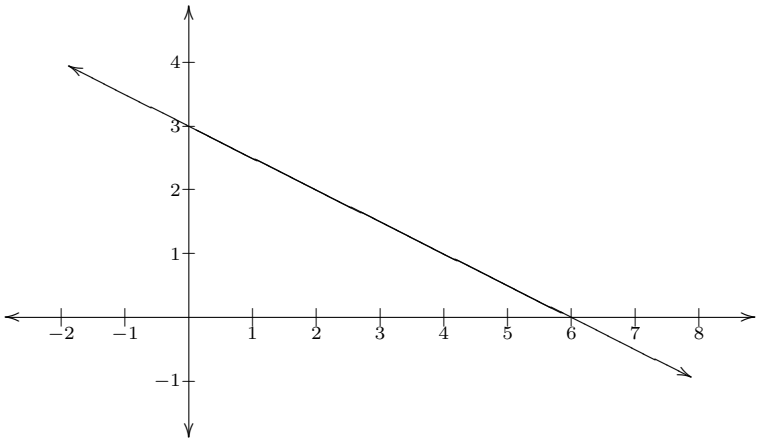
10 If a right prism has height h and its base has area A and perimeter p, then its surface area is given by the formula $S = 2A + ph$. Suppose that you have a right prism with a height of 5 metres and whose base has an area of 9 square metres and a perimeter of 12 metres. What is its surface area?

11 To stay awake after a night of grading, I paid \$3.55 for a cup of fancy coffee. This price includes a 9.14% restaurant sales tax. What was the price listed before the tax?

12 Solve $2x - 3y = 6$ for y.

13 Draw a graph of the equation $y = 3x - 6$.

14 Find the intercepts of the graph shown below.



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

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

17 An equation with no solution is a(n) _____.

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 $t = 7$

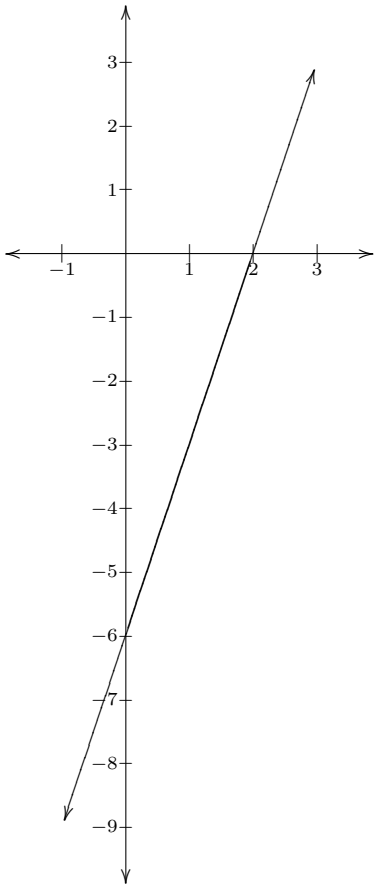
9 $x > -1$

10 78 square metres

11 \$3.25

12 $y = \frac{2}{3}x - 2$

13



14 $(0, 3), (6, 0)$

15 equation

16 polynomial

17 contradiction