

Name: _____ Period: _____ Date: _____

Multiplying and Dividing Real Numbers Exit Quiz

Simplify each expression.

1. $6(-2x) - 14x$

2. $\frac{50x - 40y}{2}$

Evaluate each expression.

3. $-7x^2 + 4x - 2$ when $x = 3$

4. $\frac{3a - 4b}{ab}$ when $a = -\frac{1}{3}$ and $b = \frac{1}{4}$

5. What is the total weight capacity of a bus that can carry 54 passengers, with each weighing 50kg?

Multiplying and Dividing Real Numbers Exit Quiz

ANSWER

Simplify each expression.

$$\begin{aligned}
 1. \quad & 6(-2x) - 14x \\
 & = -12x - 14x \\
 & = -26x
 \end{aligned}$$

$$\begin{aligned}
 2. \quad & \frac{50x - 40y}{2} \\
 & = \frac{50x}{2} - \frac{40y}{2} \\
 & = 25x - 20y
 \end{aligned}$$

Evaluate each expression.

$$\begin{aligned}
 3. \quad & -7x^2 + 4x - 2 \text{ when } x = 3 \\
 & = -7(3)^2 + 4(3) - 2 \\
 & = -7(9) + 12 - 2 \\
 & = -63 + 10 = -57
 \end{aligned}$$

$$\begin{aligned}
 4. \quad & \frac{3a - 4b}{ab} \text{ when } a = -\frac{1}{3} \text{ and } b = \frac{1}{4} \\
 & = \frac{3\left(-\frac{1}{3}\right) - 4\left(\frac{1}{4}\right)}{\left(-\frac{1}{3}\right)\left(\frac{1}{4}\right)} \\
 & = \frac{-1 - 1}{-\frac{1}{12}} = \frac{-2}{-\frac{1}{12}} \\
 & = 2 \div \frac{1}{12} \\
 & = 2 \cdot \frac{12}{1} \\
 & = 24
 \end{aligned}$$

5. What is the total weight capacity of a bus that can carry 54 passengers, with each weighing 50kg?

$$54 \text{ passengers} \left(\frac{50 \text{ kg}}{\text{passenger}} \right) = 2700 \text{ kg}$$