Find the slope of a line passing through (–2, –1) and (3, 9).

\[ \Delta y = y_2 - y_1 = 9 - 1 = 10 \]
\[ \Delta x = x_2 - x_1 = 3 - 2 = 5 \]

Slope = \[ \frac{\Delta y}{\Delta x} = \frac{10}{5} = 2 \]

Find the slope of a line that passes through the given two points using ratio method.

1) (–6, –7) and (–2, –3)
\[ \Delta y = \]
\[ \Delta x = \]
Slope = \[ \frac{\Delta y}{\Delta x} = \]

2) (5, –4) and (9, 1)
\[ \Delta y = \]
\[ \Delta x = \]
Slope = \[ \frac{\Delta y}{\Delta x} = \]

3) (4, 9) and (10, 1)
\[ \Delta y = \]
\[ \Delta x = \]
Slope = \[ \frac{\Delta y}{\Delta x} = \]

4) (–2, 3) and (6, 0)
\[ \Delta y = \]
\[ \Delta x = \]
Slope = \[ \frac{\Delta y}{\Delta x} = \]

5) (5, 8) and (2, –4)
\[ \Delta y = \]
\[ \Delta x = \]
Slope = \[ \frac{\Delta y}{\Delta x} = \]

6) (7, 3) and (5, 3)
\[ \Delta y = \]
\[ \Delta x = \]
Slope = \[ \frac{\Delta y}{\Delta x} = \]

7) (–1, 3) and (–7, 8)
\[ \Delta y = \]
\[ \Delta x = \]
Slope = \[ \frac{\Delta y}{\Delta x} = \]

8) (–6, 2) and (4, 11)
\[ \Delta y = \]
\[ \Delta x = \]
Slope = \[ \frac{\Delta y}{\Delta x} = \]
Find the slope of a line passing through (–2, –1) and (3, 9).

\[
\begin{align*}
\Delta y &= y_2 - y_1 = 9 - 1 = 10 \\
\Delta x &= x_2 - x_1 = 3 - 2 = 5 \\
\text{Slope} &= \frac{\Delta y}{\Delta x} = \frac{10}{5} = 2
\end{align*}
\]

Find the slope of a line that passes through the given two points using the ratio method.

1) (–6, –7) and (–2, –3) 
\[
\begin{align*}
\Delta y &= y_2 - y_1 = -7 - (-3) = -4 \\
\Delta x &= x_2 - x_1 = -2 - (-6) = 4 \\
\text{Slope} &= \frac{\Delta y}{\Delta x} = \frac{-4}{4} = -1
\end{align*}
\]

2) (5, –4) and (9, 1) 
\[
\begin{align*}
\Delta y &= y_2 - y_1 = 1 - (-4) = 5 \\
\Delta x &= x_2 - x_1 = 9 - 5 = 4 \\
\text{Slope} &= \frac{\Delta y}{\Delta x} = \frac{5}{4}
\end{align*}
\]

3) (4, 9) and (10, 0) 
\[
\begin{align*}
\Delta y &= y_2 - y_1 = 0 - 9 = -9 \\
\Delta x &= x_2 - x_1 = 10 - 4 = 6 \\
\text{Slope} &= \frac{\Delta y}{\Delta x} = \frac{-9}{6} = \frac{-3}{2}
\end{align*}
\]

4) (–2, 3) and (6, 0) 
\[
\begin{align*}
\Delta y &= y_2 - y_1 = 0 - 3 = -3 \\
\Delta x &= x_2 - x_1 = 6 - (-2) = 8 \\
\text{Slope} &= \frac{\Delta y}{\Delta x} = \frac{-3}{8}
\end{align*}
\]

5) (5, 8) and (2, –4) 
\[
\begin{align*}
\Delta y &= y_2 - y_1 = -4 - 8 = -12 \\
\Delta x &= x_2 - x_1 = 2 - 5 = -3 \\
\text{Slope} &= \frac{\Delta y}{\Delta x} = \frac{-12}{-3} = 4
\end{align*}
\]

6) (7, 3) and (5, 3) 
\[
\begin{align*}
\Delta y &= y_2 - y_1 = 3 - 3 = 0 \\
\Delta x &= x_2 - x_1 = 5 - 7 = -2 \\
\text{Slope} &= \frac{\Delta y}{\Delta x} = \frac{0}{-2} = 0
\end{align*}
\]

7) (–1, 3) and (–7, 8) 
\[
\begin{align*}
\Delta y &= y_2 - y_1 = 8 - 3 = 5 \\
\Delta x &= x_2 - x_1 = -7 - (-1) = -6 \\
\text{Slope} &= \frac{\Delta y}{\Delta x} = \frac{5}{-6} = \frac{-5}{6}
\end{align*}
\]

8) (–6, 2) and (4, 11) 
\[
\begin{align*}
\Delta y &= y_2 - y_1 = 11 - 2 = 9 \\
\Delta x &= x_2 - x_1 = 4 - (-6) = 10 \\
\text{Slope} &= \frac{\Delta y}{\Delta x} = \frac{9}{10}
\end{align*}
\]