

Practice Questions for Quiz 1

Math 1060-1

1. Graph and label the following points on the same coordinate plane:

$(-1,2)$, $(3,5)$, $(-4,-3)$, $(2,-1)$

2. Simplify each of the following expressions:

(a)

$$\frac{2x}{x+4} - \frac{1}{x-1} \qquad \text{Solution: } \frac{2x^2 - 3x - 4}{(x+4)(x-1)} \text{ or } \frac{2x^2 - 3x - 4}{x^2 + 3x - 4}$$

(b) $\sqrt{8}$

Solution: $2\sqrt{2}$

(c) $\sqrt{54}$

Solution: $3\sqrt{6}$

3. Rationalize each of the following fractions:

(a)

$$\frac{5}{\sqrt{2}} \qquad \text{Solution: } \frac{5\sqrt{2}}{2}$$

(b)

$$\frac{2 - \sqrt{3}}{3 + \sqrt{3}} \qquad \text{Solution: } \frac{9 - 5\sqrt{3}}{6}$$

4. Give the solution(s) for x that satisfy each of the following equations:

(a) $4x - 2 = 7x + 5$ Solution: $x = -\frac{7}{3}$

(b) $x^2 - 2x = 8$ Solution: $x = -2, 4$

(c) $16x^2 = 9$ Solution: $x = \pm\frac{3}{4}$