

**Accuplacer – College-Level Mathematics**

Mixed Practice Module #1

For each of the questions below, choose the best answer from the five choices given. Use scratch paper as needed.

1. The graph of which of the following equations is a straight line perpendicular to the graph of  $y = -3x$  ?

- a.  $3x + y = -3$
- b.  $x + 3y = 6$
- c.  $x - 3y = -3$
- d.  $3x - y = 6$
- e.  $3x + 3y = -3$

2.  $3x(2x - 1) + 2(2x - 1)$  is equal to

- a.  $6x(2x - 1)$
- b.  $(3x - 2)(2x - 1)$
- c.  $(3x - 2)(2x + 1)$
- d.  $(3x + 2)(2x + 1)$
- e.  $(3x + 2)(2x - 1)$

3. If  $y \neq z$  and  $\frac{1}{x} - \frac{1}{y} = \frac{1}{z}$  then  $x =$

- a.  $\frac{1}{z} + \frac{1}{y}$
- b.  $y + z$
- c.  $\frac{yz}{y+z}$
- d.  $\frac{y+z}{yz}$

$$\frac{1}{yz}$$

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4. A root of  $x^2 - 3x - 3 = 0$  is

a.  $\frac{-3+\sqrt{21}}{2}$

b.  $\frac{-3+\sqrt{15}}{2}$

c.  $\frac{-3-\sqrt{21}}{2}$

d.  $\frac{3-\sqrt{15}}{2}$

e.  $\frac{3-\sqrt{21}}{2}$

5. If  $8x^2 - 4x - 1 = 0$ , then  $\left(x - \frac{1}{4}\right)^2 =$

a.  $-\frac{3}{16}$

b.  $-\frac{1}{8}$

c. **0**

d.  $+\frac{1}{8}$

e.  $+\frac{3}{16}$