

Sample Test Items

1. In the solution of the system of equations:

$$3x + y = 13$$

$$x + 5y = 23, \text{ the unknown } y = ?$$

- a. -4 b. -3 c. 2 d. 3 e. 4

2. One of the roots of $3x^2 + 5x - 3 = 0$ is

- a. $\frac{5 + \sqrt{11}}{6}$ b. $\frac{-5 - \sqrt{61}}{6}$ c. $\frac{5 + \sqrt{61}}{6}$ d. $\frac{-5 + \sqrt{11}}{6}$ e. no real roots

3. $\left(\frac{3x^{-1}y^0}{z^2}\right)^{-3} =$

- a. $\frac{x^3z^6}{27}$ b. 0 c. $\frac{-27x^3}{z^6}$ d. $\frac{3x^{-4}}{z^{-1}}$ e. $-3x^3y^{-3}z^1$

4. For the figure to the right, $\tan \theta = ?$

- a. $\frac{9}{25}$ b. $\frac{3}{5}$ c. $\frac{3}{4}$ d. $\frac{4}{5}$ e. $\frac{5}{3}$