

**TOPICS AND SAMPLE QUESTIONS FOR THE ASSESSMENT TEST FOR
Math 29 (Pre-calculus)**

1. Elementary numerical and algebraic operations.

$$\frac{c}{d} + 2 =$$

- a. $\frac{c+2d}{d}$ b. $\frac{c+2}{d+2}$ c. $\frac{c+2}{d}$ d. $c + 2d$ e. c

2. Operations with fractional exponents and radicals.

$$\sqrt{3} + \sqrt{27} =$$

- a. 6 b. $3\sqrt{3}$ c. $4\sqrt{3}$ d. $10\sqrt{3}$ e. $\sqrt{30}$

3. Linear functions and equations.

If $3x + 2y = 8$ and $y = x - 1$, then $x =$

- a. -6 b. 6 c. 7 d. 9 e. 2

4. Polynomial functions and equations.

One of the roots of $(x-2)(3x+4) = 0$ is

- a. -2 b. $\frac{-4}{3}$ c. $\frac{-3}{4}$ d. $\frac{3}{4}$ e. $\frac{4}{3}$

5. Inequalities and absolute value.

The inequality $7 - 2x < 1$ is equivalent to

- a. $x < 3$ b. $x > 3$ c. $x < -4$ d. $x > -4$ e. $x < 8$

6. Graphing

Which of the following is an equation of a line with slope 3 and y-intercept -4?

- a. $y = 1x - 4$ b. $y = 3x - 4$ c. $y = 3x + 4$
d. $y = 4x - 3$ e. $y = 4x + 3$

7. Word problems.

A student who correctly answered 72 questions on a test received a score of 75% How many questions were on the test?

- a. 54 b. 72 c. 75 d. 96 e. 104

ANSWERS: 1. a; 2. c; 3. e; 4. b; 5. b; 6. b; 7.d.