Pretest: MATH 124

Name______________________________

1. Solve: \(|2x + 3| > 5\)

2. Simplify: \((5x^2 y^{-3} z^0)(2x^{-2} y^5 z - 3x^2 z^0)\)

3. Factor completely: \(a^3 - 2a^2 - 4a + 8\)

4. Find the slope, x-intercept, and y-intercept of \(3x + 4y = 12\)

5. Find all values of \(x\) for which this expression is undefined: \(\frac{3x}{x^2 - 4x}\)
6. Write the equation of the line that passes through (1, -3) and is perpendicular to the line \(2x + 3y = 10\).

7. Solve by substitution or elimination method: \(2x - y = 5\) and \(x + 3y = 13\).

8. Solve by use of the quadratic formula: \(x^2 + 2x - 5 = 0\).

9. Find the quotient and remainder: \((3x^4 + 2x^3 -3x + 5) \div (x - 1)\).

10. A rectangular garden has an area of 40 yds\(^2\). The length is two yards less than twice its width. Find the length and width of the garden.