

Smart Start

for the students entering MAT0028, MAT1033, MAC1105

MAT0028, MAT1033, MAC1105

1. Perform the indicated operation.

$$\frac{1}{2} - \frac{1}{3}$$

2. Change the percent to a decimal.

$$6.37\%$$

3. Solve the equation.

$$3(y - 6) = 9y - 42$$

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4. Perform the indicated operation.

$$(-3)^2 - 10^2 \div 2(-1 - 4)$$

5. Perform the indicated operation and simplify.

$$(10z - 5)(z^2 + 2z - 2)$$

6. Perform the indicated operation and simplify.

$$\frac{3}{x} - 8$$

7. Perform the indicated operation and simplify.

$$7\sqrt{2} + 4\sqrt{18} - \sqrt{5}$$

8. Factor completely.

$$16y^2 + 72y - 40$$

9. Simplify the expression.

$$\frac{21x - 21}{11} \div \frac{7x - 7}{110}$$

10. Solve the equation.

$$x(5x + 13) = 6$$

11. Solve the equation for l .

$$P = 2(l + w)$$

12. Solve the inequality. Write your answer with interval notations.

$$-14r - 14 \leq -2(6r + 10)$$

13. Find the ordered pairs so that they are solutions of the given linear equation.

$$x - 3y = -12$$

$$(-3, \quad), (0, \quad), (\quad, 0)$$

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14. Find the slope of the line that passes through the points.

$$(16, -9), (-2, 12)$$

15. Find the line equation that passes through the points.

$$(16, -9), (-2, 12)$$

16. Solve the inequality. Write the solution in interval notations.

$$\frac{-x + 3}{2} > \frac{4 + x}{5}$$

17. Solve the rational equation for a .

$$\frac{6}{5a + 10} - \frac{1}{a - 5} = \frac{4}{a^2 - 3a - 10}$$

18. Evaluate the function

$$f(x) = \frac{1}{2}x - 1$$

1) $f(2) =$

2) $f(4a) =$

3) $f(w + 4) =$

19. Find the intercepts, domain and range of the function.

$$f(x) = -5x + 3$$

20. Solve the system of equations.

$$\begin{cases} 2x + 3y = 3 \\ 5x + 2y = 13 \end{cases}$$