

Use the given conditions to write an equation for the line in slope-intercept form.

1) Passing through (4, 5) and perpendicular to $y = \frac{1}{4}x + 9$ 1) _____

Solve the system of three linear equations containing three unknowns.

2) 2) _____
$$\begin{cases} 5x + 2y + z = -11 \\ 2x - 3y - z = 17 \\ 7x + y + 2z = -4 \end{cases}$$

Solve the equation.

3) $q(3q + 13) = 10$ 3) _____

4) $1 + \frac{1}{y} = \frac{42}{y^2}$ 4) _____

5) $\sqrt{2x + 1} = x - 3$ 5) _____

6) $2x^2 + 8x + 5 = 0$ 6) _____

7) $2^{2x + 1} = 32$ 7) _____

8) $\log_3 (x - 4) = -2$ 8) _____

9) $\ln(x) = 5$ 9) _____

Solve the equation. Give an exact solution.

10) $2^x + 7 = 3$ 10) _____

Answer Key

Testname: FINAL EXAM REVIEW MATH 80

1) $y = -4x + 21$

2) $(0, -6, 1)$

3) $q = \frac{2}{3}, -5$

4) $y = -7$ or $y = 6$

5) $\{8\}$

6) $\left\{ \frac{-4 - \sqrt{6}}{2}, \frac{-4 + \sqrt{6}}{2} \right\}$

7) $x = 2$

8) $x = \frac{37}{9}$

9) $x = e^5$

10) $\frac{\log 3}{\log 2} - 7$