Algebra 1 ECA Remediation Name Answer Key

Homework 39.2

Solve each equation. Remember to check for extraneous solutions.

1) $4 = \sqrt{\frac{m}{4}}$

$(4)^2 = \left(\sqrt{\frac{m}{4}}\right)^2$

$(4)\ 16 = \frac{m}{4}\ (4)$

$64 = m$

2) $2 = \sqrt{r}$

$2^2 = (\sqrt{r})^2$

$4 = r$

3) $\sqrt{64 - 3n} = 8$

$(\sqrt{64-3n})^2 = (8)^2$

$64 - 3n = 64$

$-64 \quad -64$

$\frac{-3n}{-3} = \frac{0}{-3}$

$n = 0$

4) $-2 = -5 + \sqrt{1 - 8b}$

$+5 \quad +5$

$3^2 = (\sqrt{1-8b})^2$

$9 = 1 - 8b$

$-1 \quad -1$

$\frac{8}{-8} = \frac{-8b}{-8}$

$-1 = b$

5) $\sqrt{10v + 4} - 4 = 4$

$+4 \quad +4$

$(\sqrt{10v+4})^2 = (8)^2$

$10v + 4 = 64$

$-4 \quad -4$

$10v = 60$

$\frac{10v}{10} = \frac{60}{10}$

$v = 6$

6) $\frac{6}{6} = \frac{6\sqrt{x-8}}{6}$

$1^2 = (\sqrt{x-8})^2$

$1 = x - 8$

$+8 \quad +8$

$9 = x$

Solve each system by elimination.

7) $-2x - 12y = 26$

$6(10x + 2y = -14)$

$-2x - 12y = 26$

$60x + 12y = -84$

$\frac{58x}{58} = \frac{-58}{58}$

$x = -1$

$-2(-1) - 12y = 26$

$2 - 12y = 26$

$-2 \quad -2$

$\frac{-12y}{-12} = \frac{24}{-12}$

$y = -2$

$(-1, -2)$

8) $10x + y = 28$

$-2(5x + 7y = 1)$

$10x + y = 28$

$-10x - 14y = -2$

$\frac{-13y}{-13} = \frac{26}{-13}$

$y = -2$

$10x - 2 = 28$

$+2 \quad +2$

$\frac{10x}{10} = \frac{30}{10}$

$x = 3$

$(3, -2)$

Write the slope-intercept form of the equation of the line through the given points.

9) through: $(0, 3)$ and $(4, 5)$

$m = \frac{3-5}{0-4} = \frac{-2}{-4} = \frac{1}{2}$

$y - 3 = \frac{1}{2}(x - 0)$

$y - 3 = \frac{1}{2}x$

$+3 \quad +3$

$y = \frac{1}{2}x + 3$

10) through: $(1, 1)$ and $(0, 3)$

$m = \frac{1-3}{1-0} = \frac{-2}{1}$

$y - 3 = -2(x - 0)$

$y - 3 = -2x$

$+3 \quad +3$

$y = -2x + 3$

Answers to Homework 39.2

1) $\{64\}$
2) $\{4\}$
3) $\{0\}$
4) $\{-1\}$
5) $\{6\}$
6) $\{9\}$
7) $(-1, -2)$
8) $(3, -2)$
9) $y = \frac{1}{2}x + 3$
10) $y = -2x + 3$