Algebra 1 ECA Remediation

Name Answer Key

Homework 28.1

Factor each completely.

1) $5m^2 + 24m - 5$

-25

$-1m + 25m$

$5 \quad 5$

$5m^2 - m + 25m - 5$

$m(5m-1) + 5(5m-1)$

$(5m-1)(m+5)$

2) $3r^2 - 10r - 8$

$3(-8)$

-24

$1 \quad 24$

$+2r \quad -12r$

$3 \quad 8$

$4 \quad 6$

$3r^2 + 2r - 12r - 8$

$r(3r+2) - 4(3r+2)$

$(3r+2)(r-4)$

3) $3m^2 - 11m + 10$

$3(10)$

$+30$

$1 \quad 30$

$2 \quad 15$

$3 \quad 10$

$-5m \quad -6m$

$3m^2 - 5m - 6m + 10$

$m(3m-5) - 2(3m-5)$

$(3m-5)(m-2)$

4) $4n^2 - 12n + 5$

$4(5)$

$+20$

$1 \quad 20$

$-2n \quad -10n$

$4 \quad 5$

$4n^2 - 2n - 10n + 5$

$2n(2n-1) - 5(2n-1)$

$(2n-1)(2n-5)$

5) $4a^2 + 8a + 3$

$4(3)$

$+12$

$1 \quad 12$

$+2a \quad +6a$

$3 \quad 4$

$4a^2 + 2a + 6a + 3$

$2a(2a+1) + 3(2a+1)$

$(2a+1)(2a+3)$

6) $6v^2 - 13v + 6$

$6(6)$

$+36$

$1 \quad 36$

$2 \quad 18$

$3 \quad 12$

$-4v \quad -9v$

$6 \quad 6$

$6v^2 - 4v - 9v + 6$

$2v(3v-2) - 3(3v-2)$

$(3v-2)(2v-3)$

Solve each system by substitution.

7) $y = \boxed{4x + 13}$
$-4x - 2y = -2$

$-4x - 2(4x+13) = -2$

$-4x - 8x - 26 = -2$

$-12x - 26 = -2$
$+26 \quad +26$

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

$x = -2$

$y = 4(-2) + 13$

$y = -8 + 13$

$y = 5$

$(-2, 5)$

8) $-3x - 3y = -9$
$y = \boxed{6x - 4}$

$-3x - 3(6x-4) = -9$

$-3x - 18x + 12 = -9$

$-21x + 12 = -9$
$-12 \quad -12$

$\frac{-21x}{-21} = \frac{-21}{-21}$

$x = 1$

$y = 6(1) - 4$

$y = 6 - 4$

$y = 2$

$(1, 2)$

Answers to Homework 28.1

1) $(5m-1)(m+5)$
2) $(3r+2)(r-4)$
3) $(3m-5)(m-2)$
4) $(2n-1)(2n-5)$
5) $(2a+1)(2a+3)$
6) $(3v-2)(2v-3)$
7) $(-2, 5)$
8) $(1, 2)$