

Due 4-14

p P12: 29, 31-34, 421: 1-6, 8-11

29. $x = -10, 2$ 31. $x = -4, 6$ 32. $x = -8, 11$

33. $x = \frac{3 \pm \sqrt{37}}{2}$ 34. $x = \frac{6 \pm 2\sqrt{6}}{3}$

421: 1. $x = 1, (0, -12), (1, -13)$

2. $x = -1, (0, 6), (-1, 5)$

3. $x = -1, (0, 8), (-1, -10)$

4. $x = 3, (0, 3), (3, -15)$

5. $x = 2, (0, -4), (2, -16)$

6. $x = -1, (0, -1), (-1, -5)$

8. 1 9. 108 10. -8 11. 100

Discriminant: $b^2 - 4ac$

6. $4x^2 + 8x - 1$ axis $\frac{-b}{2a} = \frac{-8}{2(4)} = \frac{-8}{8} = -1 = x$
AoS

$4(-1)^2 + 8(-1) - 1 = 4 - 8 - 1 = -5$ vertex $(-1, -5)$

y-intercept $(0, -1)$

29. $x^2 + 8x - 20 = 0$

$x^2 + 8x + 16 = 20 + 16$

$(x+4)^2 = 36$

$x+4 = \pm 6$ $x = 2$ $x = -10$