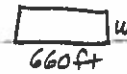
[1] p. 192-193 #12, 19-28 Key

A#13 [2] p. 194 #29-37 and p. 197 #34-35

[1] p. 192-193 #12, 19-28

12. 

w = width (ft)

$A = LW$

$\frac{211,200}{660} = \frac{660w}{660}$

$w = 320$ ft

The width of the park is 320 ft.

19. $3w + 4w - 2 = 12$

$7w + (-2) = 12$

$+2 \quad +2$

$\frac{7w}{7} = \frac{14}{7}$

$w = 2$

20. $z + 5 - 4z = 8$

$z + 5 + (-4z) = 8$

$-3z + 5 = 8$

$+(-5) \quad +(-5)$

$\frac{-3z}{-3} = \frac{3}{-3}$

$z = -1$

21. $c + 2c - 5 - 5c = 7$

$c + 2c + (-5) + (-5c) = 7$

$-2c + (-5) = 7$

$+5 \quad +5$

$\frac{-2c}{-2} = \frac{12}{-2}$

$c = -6$

22. $4y - (y - 4) = -20$

$4y + (-1)(y + (-4)) = -20$

$4y + (-y) + 4 = -20$

$3y + 4 = -20$

$+(-4) \quad +(-4)$

$\frac{3y}{3} = \frac{-24}{3}$

$y = -8$

23. $8a - 3(2a + 5) = 13$

$8a + (-3)(2a + 5) = 13$

$8a + (-6a) + (-15) = 13$

$2a + (-15) = 13$

$+15 \quad +15$

$\frac{2a}{2} = \frac{28}{2}$

$a = 14$

24. $16h - 4(5h - 7) = 4$

$16h + (-4)(5h + (-7)) = 4$

$16h + (-20h) + 28 = 4$

$-4h + 28 = 4$

$+(-28) \quad +(-28)$

$\frac{-4h}{-4} = \frac{-24}{-4}$

$h = 6$

25. $\frac{3}{2}(b + 1) = 3$

$\times(\frac{2}{3}) \quad \times(\frac{2}{3})$

$b + 1 = 2$

$+(-1) \quad +(-1)$

$b = 1$

26. $\frac{4}{3}(2x - 1) = -12$

$(\frac{3}{4})\frac{4}{3}(2x + (-1)) = -12(\frac{3}{4})$

$2x + (-1) = -9$

$+1 \quad +1$

$\frac{2x}{2} = \frac{-8}{2}$

$x = -4$

27. $\frac{6}{5}(8k + 2) = -36$

$\times(\frac{5}{6}) \quad \times(\frac{5}{6})$

$8k + 2 = -30$

$+(-2) \quad +(-2)$

$\frac{8k}{8} = \frac{-32}{8}$

$k = -4$

28. 5 - # of tickets

2.50 - extra charge per ticket

15 - Rush charge

352.50 - Total cost

t = cost of 1 ticket

(Total cost) = [(Cost per ticket) + (Extra charge)](# of tickets) + (Rush charge)

$352.50 = [t + 2.50](5) + 15$

$352.5 = 5t + 12.5 + 15$

$352.5 = 5t + 27.5$

$+(-27.5) \quad +(-27.5)$

$\frac{325}{5} = \frac{5t}{5}$

$t = 65$

The cost of each ticket is $65.

A#13 Continued

Key

2 p.194 #29-37 and p.197 #34-35

29. $-3z-1=8-3z$

$-3z+(-1)=8+(-3z)$

$+3z \quad +3z$

$-1=8$

No Real Solution

30. $16-2m=5m+9$

$16+(-2m)=5m+9$

$+(-9) \quad +2m \quad +2m \quad +(-9)$

$\frac{7}{7}=\frac{7m}{7}$

$m=1$

31. $2.9w+5=4.7w-7.6$

$2.9w+5=4.7w+(-7.6)$

$+(-2.9w) \quad +7.6 \quad +(-2.9w) \quad +7.6$

$\frac{12.6}{1.8}=\frac{1.8w}{1.8}$

$w=7$

32. $2y+11.4=2.6-0.2y$

$2y+11.4=2.6+(-0.2y)$

$+.2y \quad +(-11.4) \quad +(-11.4) \quad +.2y$

$\frac{2.2y}{2.2}=\frac{-8.8}{2.2}$

$y=-4$

33. $4(x-3)=-2(6-2x)$

$4(x+(-3))=-2(6+(-2x))$

$4x+(-12)=-12+4x$

$+(-4x) \quad +(-4x)$

$-12=-12$

$x=\{\text{All Real \#s}\}$

34. $6(2a+10)=5(a+5)$

$12a+60=5a+25$

$+(-5a) \quad +(-60) \quad +(-5a) \quad +(-60)$

$\frac{7a}{7}=\frac{-35}{7}$

$a=-5$

35. $\frac{1}{12}(48+24b)=2(17-4b)$

$\frac{1}{12}(48+24b)=2(17+(-4b))$

$4+2b=34+(-8b)$

$+(-4) \quad +8b \quad +(-4) \quad +8b$

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

$b=3$

36. $1.5(n+20)=0.5(3n+60)$

$1.5n+30=1.5n+30$

$+(-1.5n) \quad +(-1.5n)$

$30=30$

$n=\{\text{All Real \#s}\}$

37. Square: $7x-3$, $6x+5$

a. $8x-3=6x+5$

$8x+(-3)=6x+5$

$+(-6x) \quad +3 \quad +(-6x) \quad +3$

$\frac{2x}{2}=\frac{8}{2}$

$x=4$

b. $P=4s$

$P=4(6(4)+5)$

$P=4(24+5)$

$P=116$ units

p.197

34. $8.50 - Adult Price

$5.50 - child Price

2 - # of Adult Tickets

3 - # of children Tickets

3 - # of boxes of Popcorn

$40.25 - Total cost

b = cost of a box of popcorn

(Total cost) = (Adult Price)(# of Adults) + (Child Price)(# of children) + 3(cost of 1 popcorn)

$40.25=(8.5)(2)+(5.5)(3)+3b$

$40.25=17+16.5+3b$

$40.25=33.5+3b$

$+(-33.5) \quad +(-33.5)$

$\frac{6.75}{3}=\frac{3b}{3}$

$b=2.25$

Each box of popcorn costs $2.25.

35. $30 - membership fee

$5 - Cost of members

$7 - Cost of non-members

V = # of visits to justify membership

(cost with membership) = (cost without membership)

(membership fee) + (member cost)(# of visits) = (non-member cost)(# of visits)

$30+5V=7V$

$+(-5V) \quad +(-5V)$

$\frac{30}{2}=\frac{2V}{2}$

$V=15$

It will take 15 visits for the costs to be the same.