3.7 Optimization WKST

(1) $x = 24,\ y = 8$

(2) $x = 50,\ y = 25$

(3) $x = 25,\ y = 25$

(4) $x = 6$ meters, $y = 8$ meters

(5) $d = \frac{\sqrt{5}}{2}$

(6) $(\pm\sqrt{\frac{3}{2}}, \frac{5}{2})$

(7) $(1, \sqrt{5})$

(8) $\frac{3}{\sqrt{2}}'' \times \frac{6}{\sqrt{2}}''$

(9) $x = 30$ ft

(10) $A = 400\ ft^2$

(11) $A = 100$ yds $\times$ 150 yds

(12) $x = 58.333$ ft, $y = 43.75$ yds

(13) $x = \sqrt{30}$ in, $y = \frac{30}{\sqrt{30}}$ in

(14) $x = 18,\ y = 9$

(15) \$51.50

(16) \$1050