

**SM3 8.4 answers (odds)**

1.  $\frac{\sqrt{3}}{3}$

3.  $\frac{-5\sqrt{2}}{2}$

5.  $x = 7\sqrt{3}$

Yes 30-60-90

7.  $x = 2$

Yes 30-60-90

9.  $x = \frac{7}{\sqrt{2}}$  or  $\frac{7\sqrt{2}}{2}$ ,  $y = \frac{7}{\sqrt{2}}$  or  $\frac{7\sqrt{2}}{2}$

11.  $x = 6\sqrt{3}$ ,  $y = 12$

13.  $x = 5$ ,  $y = 10$

15.  $x = \frac{10}{\sqrt{3}}$  or  $\frac{10\sqrt{3}}{3}$ ,  $y = \frac{5}{\sqrt{3}}$  or  $\frac{5\sqrt{3}}{3}$

17.  $x = \frac{3}{\sqrt{2}}$  or  $\frac{3\sqrt{2}}{2}$ ,  $y = \frac{3}{\sqrt{2}}$  or  $\frac{3\sqrt{2}}{2}$

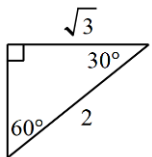
19.  $x = 4\sqrt{6}$ ,  $y = 6\sqrt{2}$

21.  $x = \frac{7\sqrt{5}}{\sqrt{3}}$  or  $\frac{7\sqrt{15}}{3}$ ,  $y = \frac{14\sqrt{5}}{\sqrt{3}}$  or  $\frac{14\sqrt{15}}{3}$

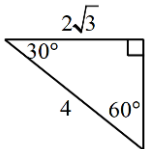
23.  $x = 3\sqrt{5}$ ,  $y = 6\sqrt{5}$

25.  $a = 3\sqrt{2}$ ,  $b = 6$

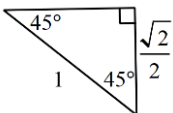
27.



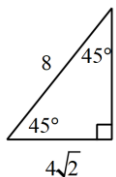
29.



31.



33.

35. Reference angle:  $45^\circ$ 

$$\cos 135^\circ = -\frac{1}{\sqrt{2}} \text{ or } -\frac{\sqrt{2}}{2}$$

37. Reference angle:  $30^\circ$ 

$$\csc 330^\circ = -2$$

39. Reference angle:  $\frac{\pi}{4}$ 

$$\cot \frac{7\pi}{4} = -1$$

41. Reference angle:  $\frac{\pi}{4}$ 

$$\tan \frac{\pi}{4} = 1$$

43.  $\approx 0.9455$ 45.  $\approx 1.5243$ 47.  $\approx 2.6131$ 49.  $m\angle B = 70^\circ$ ,  $b \approx 33.8$ ,

$$c \approx 36.0$$