Answers For 9.6 Practice A

1. A
2. B
3. C
4. B
5. A
6. D

7. $CR \rightarrow 12^2 = 8^2 + x^2$

$x^2 = 80$

$x = \sqrt{80}$

$x = 8.9$ [nearest tenth]

8. $m\angle T \rightarrow \cos T = \frac{8}{12}$

$\cos^{-1}\left(\frac{8}{12}\right) = x$

48° (nearest whole)

9. $m\angle C \rightarrow 90 - 48 = 42^\circ$

18. $m\angle A = 48^\circ$ $\quad m\angle B = 90 - 48$ $\quad BC = \sqrt{80}$

$\cos A = \frac{8}{12}$ $\quad 42^\circ$ $\quad = 8.9$

$\cos^{-1}\left(\frac{8}{12}\right) = 48^\circ$

19. $m\angle R = 54^\circ$ $\quad m\angle T = 90 - 54$ $\quad RT = 13.6$

$\tan^{-1}\left(\frac{11}{8}\right) = 54$ $\quad = 36^\circ$ $\quad c^2 = 8^2 + 11^2$

$c^2 = 64 + 121$

$c = \sqrt{185}$

$= 13.6$

20. $m\angle L = 90 - 28 = 62^\circ$

$ML = 6.6$ $\quad MN = 12.4$

$\cos 28 = \frac{x}{14}$ $\quad \sin$

$14 \cos 28 = x$

20. $m\angle L = 90 - 28 = 62^\circ$

$ML = 6.6$ | $MN = 12.4$

$\sin 28 = \frac{x}{14}$ | $\cos 28 = \frac{y}{14}$

$14 \sin(28) = 6.57$ | $14 \cos 28 = y$

21. $m\angle T = 42$

$PT = 14.4$ $\quad TQ = 19.4$

$\tan 48 = \frac{x}{13}$ $\quad \cos 48 = \frac{14}{y}$

$13 \tan 48 = x$ $\quad y = \frac{14}{\cos 48}$

22. $m\angle D = 90 - 19 = 71^\circ$

$EF = 61.0$ $\quad DF$

$\sin 19 = \frac{21}{x}$ $\quad \tan 19 = \frac{21}{y}$

$x = \frac{21}{\sin 19}$ $\quad y = \frac{21}{\tan 19}$

23.

$m\angle J = 49$

$JI = 25.9$

$IK = 19.6$