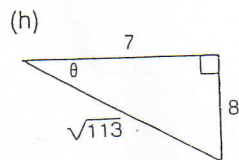
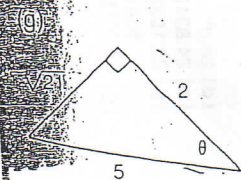
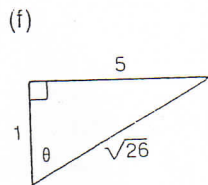
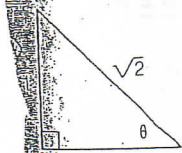
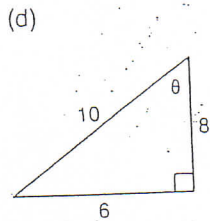
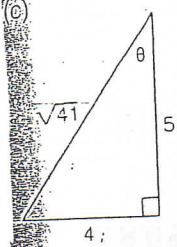
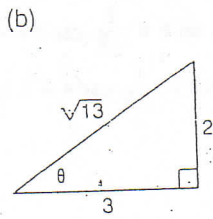
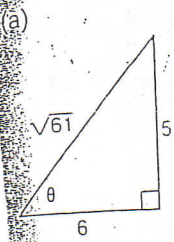
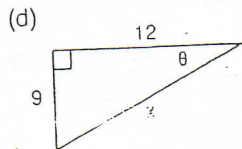
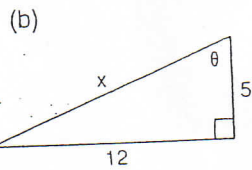
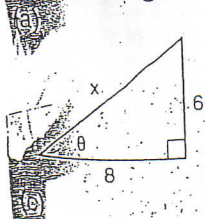


EXERCISE 9.1

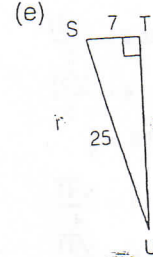
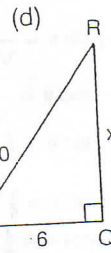
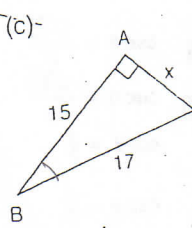
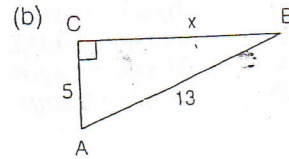
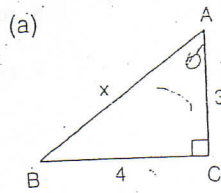
1. State the six trigonometric ratios for each of the indicated angles.



2. Find the length of the unknown side and then state the six trigonometric ratios of the indicated angle.



3. Find the length of the unknown side and state the six trigonometric ratios of each of the acute angles.



4. If $\sin \theta = \frac{1}{2}$ and $\angle \theta$ is acute, make a diagram and find the other five ratios.

5. If $\sec \theta = \frac{13}{5}$ and $\angle \theta$ is acute, make a diagram and find the other five ratios.

6. If $\tan \theta = 2$ and $\angle \theta$ is acute, make a diagram and find the other five ratios.

7. If $\cos \theta = \frac{\sqrt{3}}{2}$ and $\angle \theta$ is acute, make a diagram and find the other five ratios.

EXERCISE 9.3

1. Find the following values using a calculator or trigonometric tables.

- | | |
|-----------------------|-----------------------|
| (a) $\sin 25^\circ$ | (b) $\cot 15^\circ$ |
| (c) $\sec 28.3^\circ$ | (d) $\tan 72.5^\circ$ |
| (e) $\cos 18.8^\circ$ | (f) $\sin 37.1^\circ$ |

2. Find the measure of the angle to the nearest tenth of a degree.

- | | |
|----------------------------|----------------------------|
| (a) $\sin \theta = 0.9063$ | (b) $\csc \theta = 1.1547$ |
| (c) $\tan \theta = 2.246$ | (d) $\sin \theta = 0.4226$ |
| (e) $\cot \theta = 1.2349$ | (f) $\sec \theta = 1.0403$ |