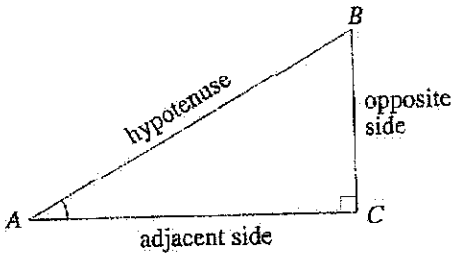
Remember these:

$$\sin \hat{A} = \frac{\text{side opposite } \hat{A}}{\text{hypotenuse}}$$

$$\cos \hat{A} = \frac{\text{side adjacent to } \hat{A}}{\text{hypotenuse}}$$

$$\tan \hat{A} = \frac{\text{side opposite } \hat{A}}{\text{side adjacent to } \hat{A}}$$

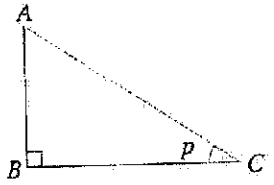


Exercise 10.3

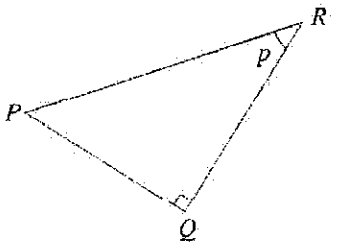
answers on p 438

1. For each diagram, name **(i)** the hypotenuse, **(ii)** the side opposite $\hat{p}$, **(iii)** the side adjacent to $\hat{p}$.

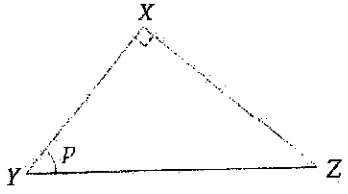
(a)



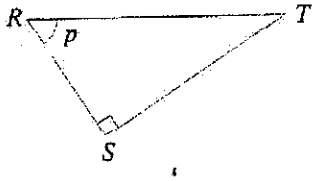
(b)



(c)



(d)



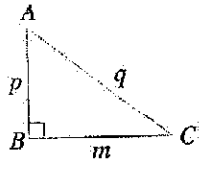
2. In $\triangle XYZ$, $\hat{X}$ is a right angle.

(a) In terms of XY, YZ and ZX, find $\sin \hat{Y}$, $\cos \hat{Y}$ and $\tan \hat{Y}$.

(b) In terms of XY, YZ and ZX, find $\sin \hat{Z}$, $\cos \hat{Z}$ and $\tan \hat{Z}$.

3. Find $\sin \hat{A}$, $\cos \hat{A}$ and $\tan \hat{A}$ in terms of p, q and m in each case.

(a)



(b)