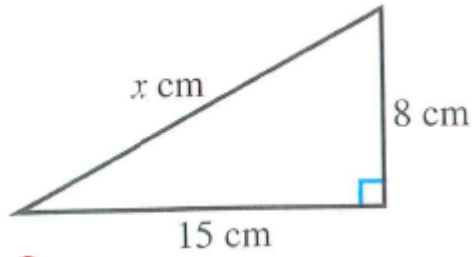


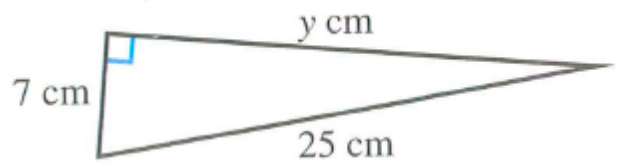
4M3 Online Homework #4

1. Find the unknowns in the following triangles.

(a)

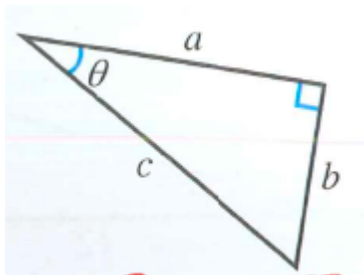


(b)

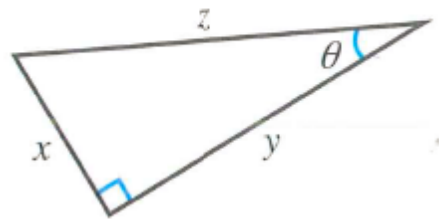


2. In the following triangles, find the values of $\sin\theta$, $\cos\theta$ and $\tan\theta$.

(a)



(b)



3. Without using a calculator, find the values of the following expressions.

(Leave the answers in surd form if necessary.)

(a) $\cos 60^\circ + \sin 30^\circ$

(b) $\sin 45^\circ \cos 45^\circ$

(c) $\tan^2 30^\circ + \tan 45^\circ$

(d) $\sin 60^\circ \cos 30^\circ \tan 60^\circ$

4. Simplify the following expressions.

(a) $1 - \sin^2(90^\circ - \theta)$

(b) $\frac{\sin\theta}{1-\cos\theta} - \tan(90^\circ - \theta)$