

# tcore 122: Quiz 4

$x$	$22.5^\circ$	$30^\circ$	$45^\circ$	$60^\circ$	$67.5^\circ$	$135^\circ$
$\cos(x)$	$\frac{\sqrt{2+\sqrt{2}}}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	$\frac{\sqrt{2-\sqrt{2}}}{2}$	$-\frac{\sqrt{2}}{2}$
$\sin(x)$	$\frac{\sqrt{2-\sqrt{2}}}{2}$	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2+\sqrt{2}}}{2}$	$\frac{\sqrt{2}}{2}$
$\tan(x)$	$\sqrt{\frac{2-\sqrt{2}}{2+\sqrt{2}}}$	$\frac{1}{\sqrt{3}}$	$1$	$\sqrt{3}$	$\sqrt{\frac{2+\sqrt{2}}{2-\sqrt{2}}}$	$-1$

1. (Wheater §10.1) Use the triangle  $ABC$  and find the following:

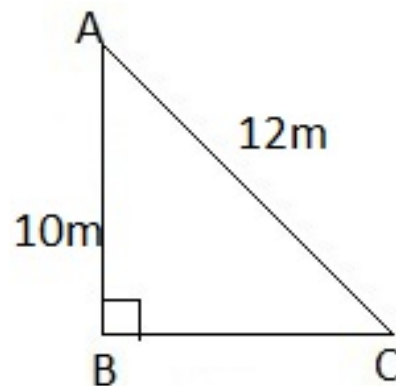
(a) [1]  $\sin \angle C$

(b) [1]  $\cos \angle A$

(c) [2] the length of  $\overline{BC}$

(d) [1]  $\tan \angle C$

(e) [1] the measure of angle  $B$



2. [4] (Wheater §10.2) A kite string attached to the ground makes an angle of  $67.5^\circ$  with the ground. When the full 500 ft of string has been played out, how high is the kite?

