

**Unit circle** — Read exact values off the unit circle

Name: \_\_\_\_\_

Date: \_\_\_\_\_



Give each exact value. Leave surds and fractions exact — no calculator.

1  $\tan 60^\circ =$  \_\_\_\_\_

2  $\tan 30^\circ =$  \_\_\_\_\_

3  $\sin 60^\circ =$  \_\_\_\_\_

4  $\cos 45^\circ =$  \_\_\_\_\_

5  $\sin 45^\circ =$  \_\_\_\_\_

6  $\sin 30^\circ =$  \_\_\_\_\_

7  $\cos 90^\circ =$  \_\_\_\_\_

8  $\cos 0^\circ =$  \_\_\_\_\_

9  $\sin 90^\circ =$  \_\_\_\_\_

10  $\tan 45^\circ =$  \_\_\_\_\_



# Unit circle · Read exact values off the unit circle — Answer key



1.  $\tan 60^\circ = \sqrt{3}$

2.  $\tan 30^\circ = \sqrt{3}/3$

3.  $\sin 60^\circ = \sqrt{3}/2$

4.  $\cos 45^\circ = \sqrt{2}/2$

5.  $\sin 45^\circ = \sqrt{2}/2$

6.  $\sin 30^\circ = 1/2$

7.  $\cos 90^\circ = 0$

8.  $\cos 0^\circ = 1$

9.  $\sin 90^\circ = 1$

10.  $\tan 45^\circ = 1$