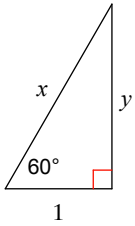


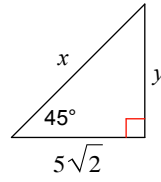
8.3 The Unit Circle

Find the missing side lengths. Leave your answers as radicals in simplest form.

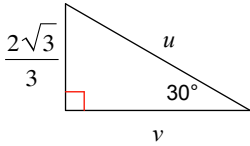
1)



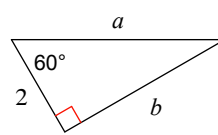
2)



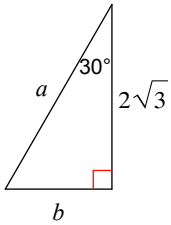
3)



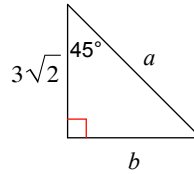
4)



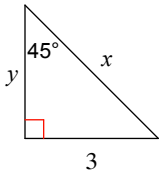
5)



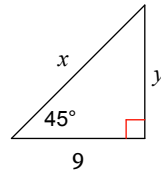
6)



7)



8)



Find the exact value of each trigonometric function.

9) $\cos 45^\circ$

10) $\tan 0^\circ$

11) $\sin 45^\circ$

12) $\sin 225^\circ$

13) $\sin 180^\circ$

14) $\sin 0^\circ$

15) $\cos 0^\circ$

16) $\cos 315^\circ$

17) $\sin 30^\circ$

18) $\tan 150^\circ$

19) $\sin 300^\circ$

20) $\tan 225^\circ$

21) $\tan 135^\circ$

22) $\cos 210^\circ$

23) $\cos 225^\circ$

24) $\sin 210^\circ$

25) What is the equation of the unit circle?

26) Explain where the coordinates of the unit circle come from.