

Transition to College Math

Guided Practice Unit 3 Lesson 3 The Unit Circle

Name _____ Date _____ Period _____

Change from degree measure to radian measure.

1. 30°

3. 240°

5. -25°

2. 135°

4. 320°

6. -150°

Change from radian measure to degree measure.

7. $\frac{11}{6}\pi$

9. $\frac{11}{6}\pi$

11. 2.3

8. $\frac{5}{4}\pi$

10. $\frac{1}{4}\pi$

12. -18

In the following problems, assume that the given point lies on the terminal side of an angle in standard position. Find the radian measure of the angle. Give an exact answer, if possible. If not, round to three decimal places.

13. $\left(-\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}\right)$

15. $\left(\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$

17. $(-0.6, -0.8)$

14. $\left(-\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$

16. $(-1, 0)$

18. $(0.8824, 0.4706)$

19. Given the radius of a circle is 3 cm, find the arc length if the central angle is 60° .

20. The length of the portion of the circumference of a circle with diameter 8 ft. is π ft. What is the central angle subtended by this arc?