

Name _____

10-5B Lesson Master

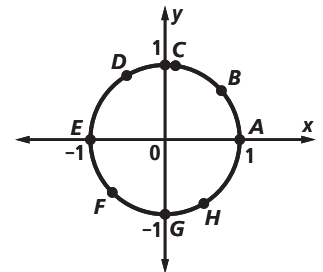
Questions on SPUR Objectives
See Student Edition pages 724–727 for objectives.

PROPERTIES Objective E

1. a. In which quadrants is the sine negative? _____
- b. In which quadrants is the cosine negative? _____
2. a. If $\cos \theta > 0$ and $\sin \theta < 0$, in which quadrant is θ ? _____
- b. If $\cos \theta > 0$ and $\sin \theta > 0$, in which quadrant is θ ? _____
3. a. Use a calculator to find the coordinates of $R_{70}(1, 0)$ and $R_{290}(1, 0)$ to the nearest thousandth. _____
- b. Explain why your two answers are related. _____
4. a. Use a calculator to find the coordinates of $R_{-25}(1, 0)$ and $R_{-335}(1, 0)$ to the nearest thousandth. _____
- b. Explain how your two answers are related. _____

In 5–12, for the indicated point in the unit circle at the right, tell if the value for $\sin \theta$ or $\cos \theta$ is *positive, negative, or zero*.

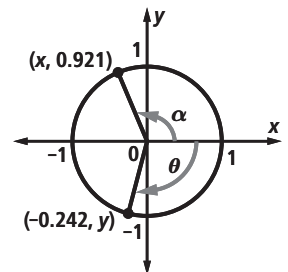
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|----------------------------|----------------------------|
| 5. A, $\cos \theta$ _____ | 6. B, $\sin \theta$ _____ |
| 7. C, $\sin \theta$ _____ | 8. D, $\cos \theta$ _____ |
| 9. E, $\cos \theta$ _____ | 10. F, $\cos \theta$ _____ |
| 11. G, $\cos \theta$ _____ | 12. H, $\sin \theta$ _____ |



PROPERTIES Objective F

Fill in the Blanks In 13–16, use the unit circle at the right to fill in the blanks.

13. Use the inverse sine function to find α ; use α to find the x -coordinate.
 $\alpha \approx$ _____, $x \approx$ _____
14. Use the Pythagorean Identity to find x .
Equation: _____, $x \approx$ _____.
15. Use the inverse cosine function to find θ ; use θ to find the y -coordinate.
 $\theta \approx$ _____, $y \approx$ _____
16. Use the Pythagorean Identity to find y .
Equation: _____, $y \approx$ _____.



Name _____

10-5B

page 2

Fill in the Blanks In 17-20, use the unit circle at the right to fill in the blanks.

17. Use the inverse cosine function to find θ ; use θ to find the y -coordinate.

$\theta \approx$ _____, $y \approx$ _____

18. Use the Pythagorean Identity to find y .

Equation: _____, $y \approx$ _____.

19. Use the inverse sine function to find α ; use α to find the x -coordinate.

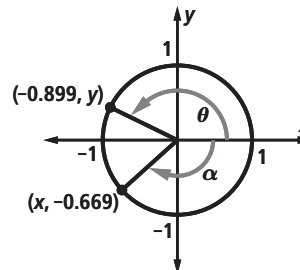
$\alpha \approx$ _____, $x \approx$ _____

20. Use the Pythagorean Identity to find x .

Equation: _____, $x \approx$ _____.

21. If $\sin \theta = 0.629$, find all possible values of θ between 0° and 360° , to the nearest degree.

22. If $\cos \theta = 0.629$, find all possible values of θ between 0° and 360° , to the nearest degree.



REPRESENTATIONS Objective I

In 23-30, use the unit circle at the right. a. Mark the point on the unit circle, and b. find the exact value of the trigonometric function.

23. a. $R_{90}(1, 0)$ b. $\cos 90^\circ =$ _____
24. a. $R_{-315}(1, 0)$ b. $\sin (-315)^\circ =$ _____
25. a. $R_{-180}(1, 0)$ b. $\cos (-180)^\circ =$ _____
26. a. $R_{120}(1, 0)$ b. $\cos 120^\circ =$ _____
27. a. $R_{720}(1, 0)$ b. $\sin 720^\circ =$ _____
28. a. $R_{225}(1, 0)$ b. $\cos 225^\circ =$ _____
29. a. $R_{660}(1, 0)$ b. $\sin 660^\circ =$ _____
30. a. $R_{270}(1, 0)$ b. $\sin 270^\circ =$ _____

