# Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13-1 to 13-5 Test Review

# Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block \_\_\_\_\_

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| **OBJ: Know how to solve a right triangle.**  *1-6: Find each missing value. Round sides to the nearest tenth & angles to degrees and minutes*  4.2  7.3  c  A  B  C | | | | | | | | | | | | |
| **1.**  b  14.7  c  32°11’  A  B  C | | | **2.** | | | | | | **3.** A = 14°, C = 90°, a = 6 | | | |
| A = \_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_ c = \_\_\_\_\_\_\_ | | | A = \_\_\_\_\_\_\_\_ B = \_\_\_\_\_\_\_\_ c = \_\_\_\_\_\_\_ | | | | | | B = \_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_ c = \_\_\_\_\_\_\_ | | | |
| **4.** A = 64°12’, C = 90°, c = 12.8 | | | **5.** C = 90°, a = 15, b = 13 | | | | | | **6.**  C  B  16  58°  c  a  A | | | |
| B = \_\_\_\_\_\_\_\_ a = \_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_ | | | A = \_\_\_\_\_\_\_\_ B = \_\_\_\_\_\_\_\_ c = \_\_\_\_\_\_\_ | | | | | | B = \_\_\_\_\_\_\_\_ a = \_\_\_\_\_\_\_\_ c = \_\_\_\_\_\_\_ | | | |
| **OBJ: Know how to solve a special right triangle without a calculator, which means no decimal answers!**  *7-12: Find the missing side lengths (x and y) without a calculator.* | | | | | | | | | | | | |
| **7.**  5  y  x  30°  x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ | | | **8.**  y  45°  8  x  x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ | | | | | | **9.**  16  60°  x  y  x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ | | | |
| **10.**  4  y  x  30°  x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ | | | **11.**  x  8  y  60°  x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ | | | | | | **12.**  x  5  y  45°  x = \_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_ | | | |
| **OBJ: Find the 6 trigonometric ratios when given 2 sides of a right triangle.**  *13-14: Find the exact values of the six trigonometric functions of the given angleθ.*  12  9  θ | | | | | | | | | | | | |
| **13.**  10  13  θ  sin θ = \_\_\_\_\_\_\_\_\_\_\_\_\_ csc θ = \_\_\_\_\_\_\_\_\_\_\_\_\_  cos θ = \_\_\_\_\_\_\_\_\_\_\_\_\_ sec θ = \_\_\_\_\_\_\_\_\_\_\_\_\_  tan θ = \_\_\_\_\_\_\_\_\_\_\_\_\_ cot θ = \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | **14.**  sin θ = \_\_\_\_\_\_\_\_\_\_\_\_\_ csc θ = \_\_\_\_\_\_\_\_\_\_\_\_\_  cos θ = \_\_\_\_\_\_\_\_\_\_\_\_\_ sec θ = \_\_\_\_\_\_\_\_\_\_\_\_\_  tan θ = \_\_\_\_\_\_\_\_\_\_\_\_\_ cot θ = \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | |
| **OBJ: Find the 6 trigonometric ratios when given the coordinate of a terminal side of an angle in standard position.**  *15-16: The terminal side of θ in standard position contains each point. Find the exact values of the six trigonometric functions ofθ.* | | | | | | | | | | | | |
| **15.** (-3, 9)  sin θ = \_\_\_\_\_\_\_\_ csc θ = \_\_\_\_\_\_\_\_  cos θ = \_\_\_\_\_\_\_\_ sec θ = \_\_\_\_\_\_\_\_  tan θ = \_\_\_\_\_\_\_\_ cot θ = \_\_\_\_\_\_\_\_ | | | | | | | **16.** (0, 4)  sin θ = \_\_\_\_\_\_\_\_ csc θ = \_\_\_\_\_\_\_\_  cos θ = \_\_\_\_\_\_\_\_ sec θ = \_\_\_\_\_\_\_\_  tan θ = \_\_\_\_\_\_\_\_ cot θ = \_\_\_\_\_\_\_\_ | | | | | |
| **OBJ: Know how to solve an acute or obtuse triangle using the Law of Sines and/or Cosines.**  *17-20:**Find the missing sides and angles (Round sides to the nearest tenth & angles to degrees and minutes).*  15  12°  25  C  B  A  b | | | | | | | | | | | | |
| **17.**  12  22  17  C  A  B | | | | | | | **18.** | | | | | |
| A = \_\_\_\_\_\_\_\_\_\_\_ B = \_\_\_\_\_\_\_\_\_\_\_ C = \_\_\_\_\_\_\_\_\_\_ | | | | | | | A = \_\_\_\_\_\_\_\_\_\_\_ B = \_\_\_\_\_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_\_\_\_ | | | | | |
| **19.**  c  B  C  A  120°  63  12 | | | | | | | **20.** A = 58°, b = 11, c = 18 | | | | | |
| A = \_\_\_\_\_\_\_\_\_\_\_ B = \_\_\_\_\_\_\_\_\_\_\_ c = \_\_\_\_\_\_\_\_\_\_ | | | | | | | B = \_\_\_\_\_\_\_\_\_\_\_ C = \_\_\_\_\_\_\_\_\_\_\_ a = \_\_\_\_\_\_\_\_\_\_ | | | | | |
| **OBJ: Know how to find the area of a triangle that does not have the height given.**  *21-23: Find the area of each triangle rounded to the nearest tenth.* | | | | | | | | | | | | |
| **21.**  B  A  C  120°  73  89 | | | **22.** *(#18 above)*    12°  25  C  B  A  15 | | | | | | **23.**  C  A  B  13  14  9 | | | |
| **OBJ: Apply your knowledge of solving triangles to real-life applications.**  *24-28: Solve each word problem below. Round all answers to the nearest tenth.* | | | | | | | | | | | | |
| 1. Joe and Rob are standing in a straight line with the base of a building. The measurement of the angle of elevation to the top of the building from the point where Joe is standing is 38°20’. From the point where Russ is standing, 50 feet closer to the building, the measurement of the angle of elevation is 45°. How tall is the building? | | | | | | | | | | | | |
| 1. How wide (to the nearest tenth) is the pond?   152 ft.  131 ft.  45° | | | | | | | | | | | | |
| 1. A pilot 3000 feet above the ocean notes the measure of the angle of depression to a ship is 42°. How far is the plane from the ship? | | | | | | | | | | | | |
| 1. A plane flew 1000 kilometers north. Then it changed direction by turning 20° clockwise and flew for another 700 kilometers. How far was the plane from its starting point? | | | | | | | | | | | | |
| **OBJ: Know how to draw an angle in standard position.**  **OBJ: Know how to convert from degrees to radians and vice versa.**  **OBJ: Know how to find the reference angle of any angle.**  *28-33: Draw each angle. Then rewrite each degree measure in radians and each radian measure in degrees. Then state the reference angle.* | | | | | | | | | | | | |
| **28.** 30°  Radians: \_\_\_\_\_\_\_\_\_\_\_\_\_  Reference : \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | 1. -120°   Radians: \_\_\_\_\_\_\_\_\_\_\_\_\_  Reference : \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | 1. 390°   Radians: \_\_\_\_\_\_\_\_\_\_\_\_\_  Reference : \_\_\_\_\_\_\_\_\_\_\_\_\_ | | |
| **31.**  Degrees: \_\_\_\_\_\_\_\_\_\_\_\_\_  Reference : \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | **32.**  Degrees: \_\_\_\_\_\_\_\_\_\_\_\_\_  Reference : \_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | **33.**  Degrees: \_\_\_\_\_\_\_\_\_\_\_\_\_  Reference : \_\_\_\_\_\_\_\_\_\_\_\_\_ | | |
| **OBJ: Know how to find coterminal angles.**  *34-41: Find the smallest positive and smallest negative coterminal angles for each given angle in the form it is presented.*  +  \_  +  \_  +  \_ | | | | | | | | | | | | |
| **34.** -380° |  | **35.** 20° | | | +  \_ | **36.** -1500° | | **.** | | | **37.** 900° |  |
|  |  |  | | |  |
| **38.** | +  \_ | +  \_  **39.** - | | |  | **40.**  +  \_ | |  | | | **41.**  +  \_ |  |
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