SPARK Hybrid Education Center

Mathematics | Upper Level

Right Triangles & Trig Intro

Name: _____ Date: _____ Score: _____

UNIT TOPICS

* SOH-CAH-TOA: sin = opp/hyp, cos = adj/hyp, tan = opp/adj
* Special right triangles: 45-45-90 and 30-60-90
* Finding missing sides

PRACTICE PROBLEMS - Show all work

1. Write cos(A) and tan(A) given sin(A) = opp/hyp: ___

2. SOH-CAH-TOA stands for: ___

3. In a 45-45-90 triangle with legs = 5, find the hypotenuse: ___

4. In a 30-60-90 triangle with short leg = 4, find the hypotenuse: ___ and long leg: ___

5. If sin(30) = 0.5 and hyp = 20, find the opposite side: ___

6. If cos(A) = 0.6 and hyp = 25, find the adjacent side: ___

7. A ladder 10 m long makes a 60 degree angle with the ground. Height = sin(60) x 10 ~___

8. Find tan(45 degrees) without a calculator: ___

9. If tan(A) = 3/4, and the adjacent side = 8, find the opposite side: ___

10. True or False: sin^2(A) + cos^2(A) = 1 for any angle A. ___

TEACHER ANSWER KEY - Right Triangles & Trig Intro

Answers (accept equivalent responses and correct reasoning):

1. [Grade based on correct application of concept taught this week]
2. [Grade based on correct application of concept taught this week]
3. [Grade based on correct application of concept taught this week]
4. [Grade based on correct application of concept taught this week]
5. [Grade based on correct application of concept taught this week]
6. [Grade based on correct application of concept taught this week]
7. [Grade based on correct application of concept taught this week]
8. [Grade based on correct application of concept taught this week]
9. [Grade based on correct application of concept taught this week]
10. [Grade based on correct application of concept taught this week]