## LAB 08 QUESTIONS

### QUESTION 1

Lab page 2: If you can form a triangle, which angle matches the angle between the dotted red line segment and the solid blue line segment?

- The solid cyan angle
- The dashed green angle
- The dotted yellow angle
- The given segments do not form a triangle.

**1 points**

### QUESTION 2

Lab page 2: The dotted red line segment is of length 3, the solid blue segment is of length 6, and the dashed magenta segment is of length 5. Calculate the measure of the angle of question 1 to the nearest degree.

**1 points**

### QUESTION 3

Lab page 3: If you can form a triangle, which angle matches the angle between the dotted red line segment and the solid blue line segment?

- The solid cyan angle
- The dashed green angle
- The dotted yellow angle
- The given segments do not form a triangle.

**1 points**

### QUESTION 4

Refer to the problems above. What case of triangle solutions do the figures represent?

- ASA
- ASS
- SAS
- SSS

**1 points**

### QUESTION 5

Lab page 4: Use the angles and line segment on the left as components of an ASA triangle. Which two line segments on the right do you have to use in order to complete the triangle?

- [ ] solid red
- [ ] dashed cyan
- [ ] small dotted magenta
- [ ] thick dotted blue

**1 points**

## QUESTION 6

Lab page 4: The smaller yellow angle is 29.9°, the larger green angle is 56.25°, and the blue segments (solid on the left, thick dotted on the right) are of length 6. Calculate the length of the shortest side of the triangle to the nearest integer.

**0.5 points**

## QUESTION 7

Lab page 5: Which line segment on the right is the missing side of the triangle?

- ○ solid red
- ○ thick dotted cyan
- ○ small dotted magenta
- ○ dashed blue

**1 points**

## QUESTION 8

Lab page 5: The given sides are actually of lengths 4 and 7, and the angle is 44.42°. Calculate the length of the missing side to the nearest integer.

**0.5 points**

## QUESTION 9

Lab page 6 (SSA): If you put the long segment adjacent to the angle, there are two possibilities for the length of the third side. Position the components to find both possible lengths. Check two:

- [ ] thin dashed black
- [ ] solid yellow
- [ ] thick dashed blue
- [ ] small dotted cyan

- [ ] thick dotted green

**1 points**

## QUESTION 10

Lab page 6 (SSA): If you put the short segment adjacent to the angle, there is only one possibility for the length of the third side. Position the components to find that length. Check one

- thin dashed black
- solid yellow
- thick dashed blue
- small dotted cyan
- thick dotted green

**0.5 points**

## QUESTION 11

Lab page 6: Suppose the given angle is $22.62^{o}$ and the given segments are of lengths 13 and 6.4. Calculate the measure of the largest angle, correct to the nearest degree.

**0.5 points**

## QUESTION 12

The "Triangle Inequality" says that the sum of the lengths of any two sides of a triangle is longer than the length of the third side. Suppose that the short sides of a triangle are of lengths $a$ and $b$ and the longest side is of length $c$. What condition on $a$, $b$, and $c$ will guarantee that the triangle has an obtuse angle?

- $a + b > c$
- $a + b < c$
- $a^2 + b^2 > c^2$
- $a^2 + b^2 < c^2$
- $a + b > 2c$
- $a + b < 2c$

**1 points**