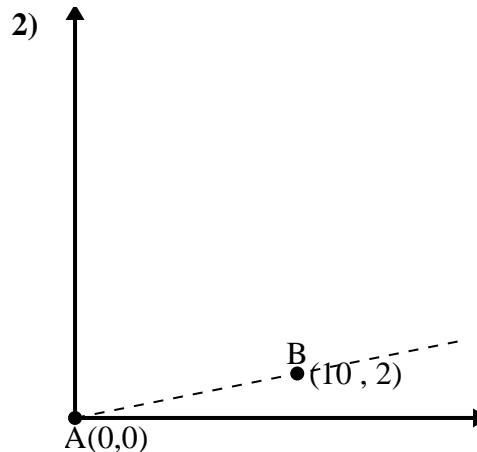
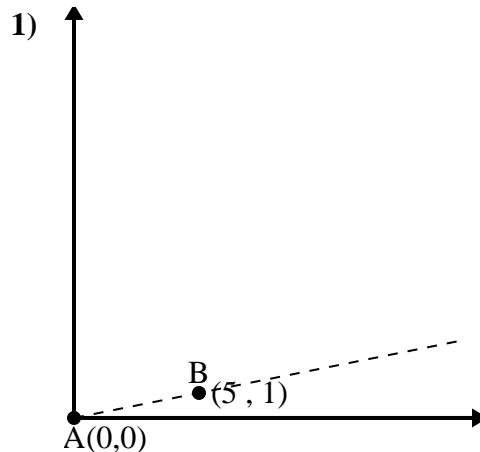




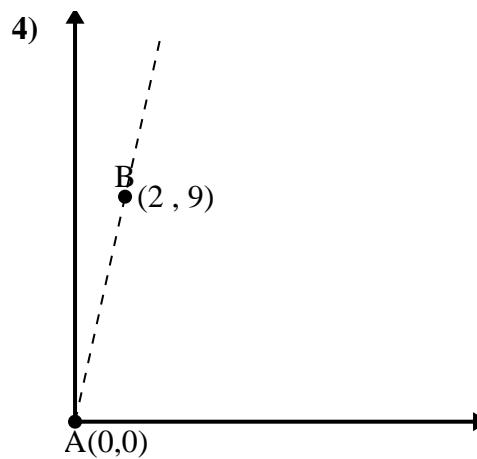
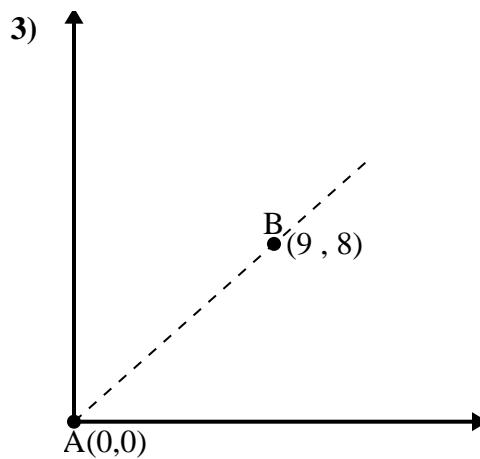
## Applying the Law of Cosines

Name: \_\_\_\_\_

Use the law of Cosines to find the point B's angle relative to point A.

Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

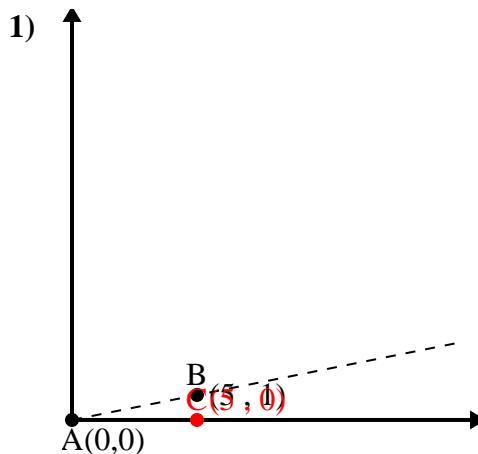




## Applying the Law of Cosines

Name: **Answer Key**

Use the law of Cosines to find the point B's angle relative to point A.

**Answers**

$$\overline{AB} \text{ length} = 5.1$$

$$\overline{AC} \text{ length} = 5$$

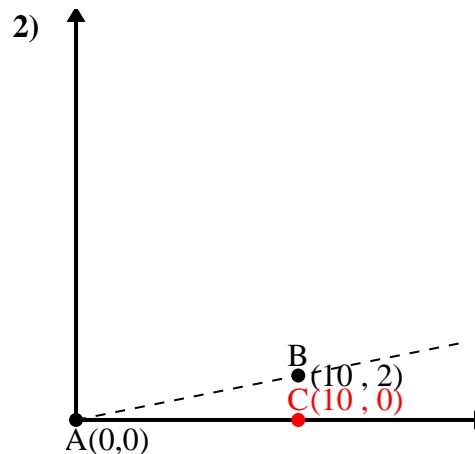
$$\overline{BC} \text{ length} = 1$$

$$(26 + 25 + 1) \div (2 \times 5.1 \times 5)$$

$$0.98$$

$$\cos^{-1}(0.98)$$

$$11.31^\circ$$



$$\overline{AB} \text{ length} = 10.2$$

$$\overline{AC} \text{ length} = 10$$

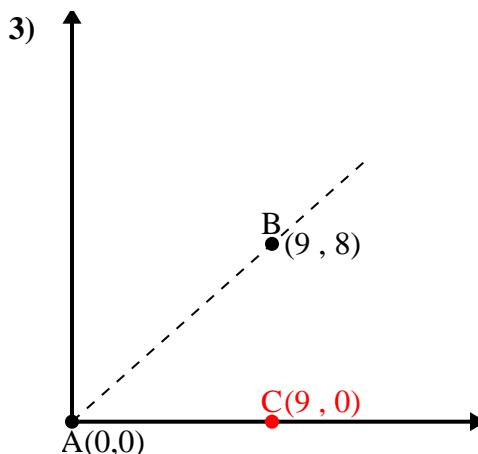
$$\overline{BC} \text{ length} = 2$$

$$(104 + 100 + 4) \div (2 \times 10.2 \times 10)$$

$$0.98$$

$$\cos^{-1}(0.98)$$

$$11.31^\circ$$



$$\overline{AB} \text{ length} = 12.04$$

$$\overline{AC} \text{ length} = 9$$

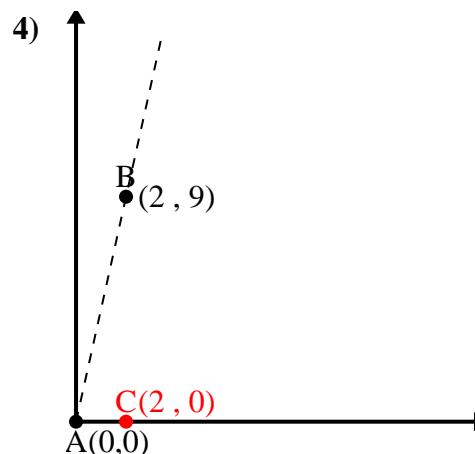
$$\overline{BC} \text{ length} = 8$$

$$(145 + 81 + 64) \div (2 \times 12.04 \times 9)$$

$$0.75$$

$$\cos^{-1}(0.75)$$

$$41.63^\circ$$



$$\overline{AB} \text{ length} = 9.22$$

$$\overline{AC} \text{ length} = 2$$

$$\overline{BC} \text{ length} = 9$$

$$(85 + 4 + 81) \div (2 \times 9.22 \times 2)$$

$$0.22$$

$$\cos^{-1}(0.22)$$

$$77.47^\circ$$

1. **11.31°**

2. **11.31°**

3. **41.63°**

4. **77.47°**