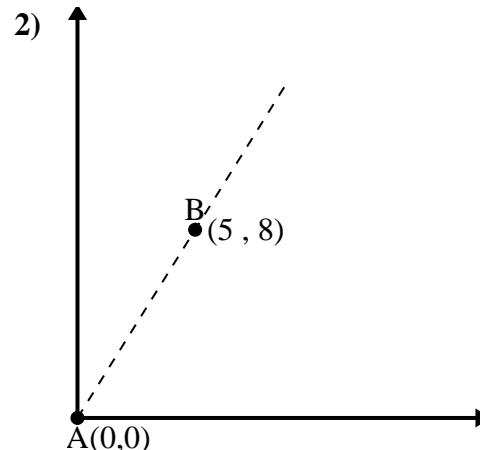
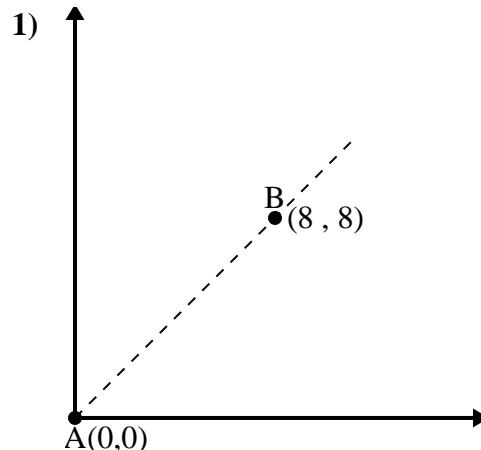


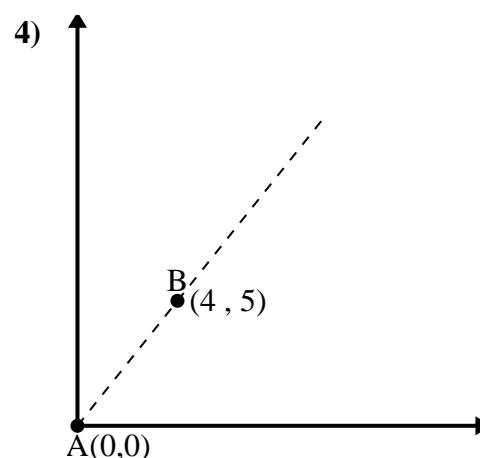
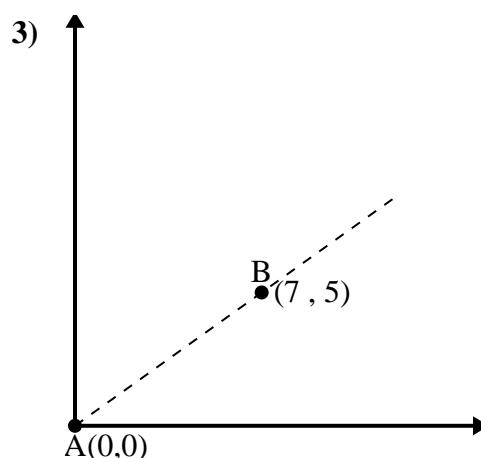
Applying the Law of Cosines

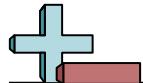
Name: _____

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

Answers

1. _____
2. _____
3. _____
4. _____

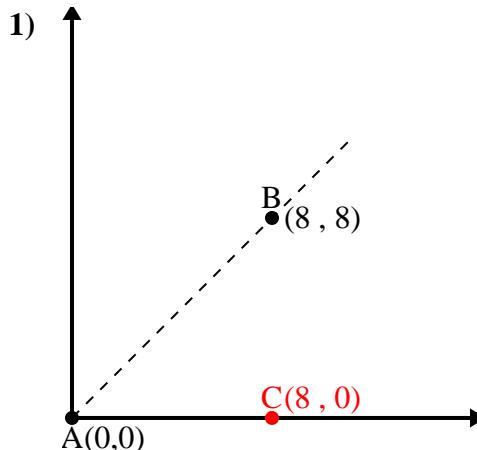




Applying the Law of Cosines

Name: **Answer Key**

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

Answers

$$\overline{AB} \text{ length} = 11.31$$

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

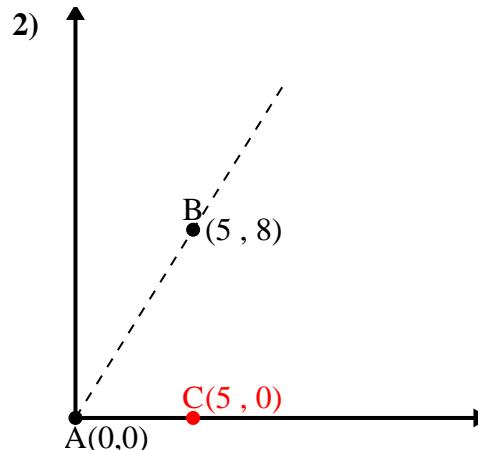
$$\overline{BC} \text{ length} = 8$$

$$(128 + 64 + 64) \div (2 \times 11.31 \times 8)$$

$$0.71$$

$$\cos^{-1}(0.71)$$

$$45^\circ$$



$$\overline{AB} \text{ length} = 9.43$$

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

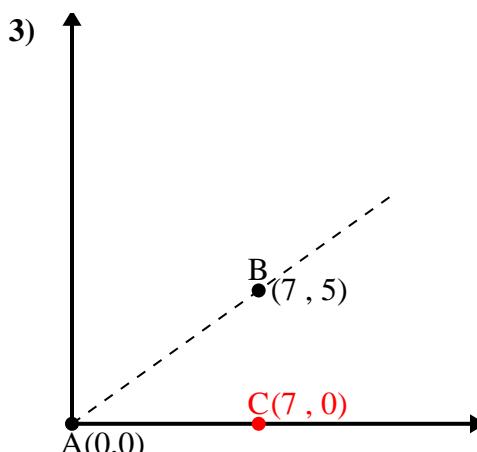
$$\overline{BC} \text{ length} = 8$$

$$(89 + 25 + 64) \div (2 \times 9.43 \times 5)$$

$$0.53$$

$$\cos^{-1}(0.53)$$

$$57.99^\circ$$



$$\overline{AB} \text{ length} = 8.6$$

$$\overline{AC} \text{ length} = 7$$

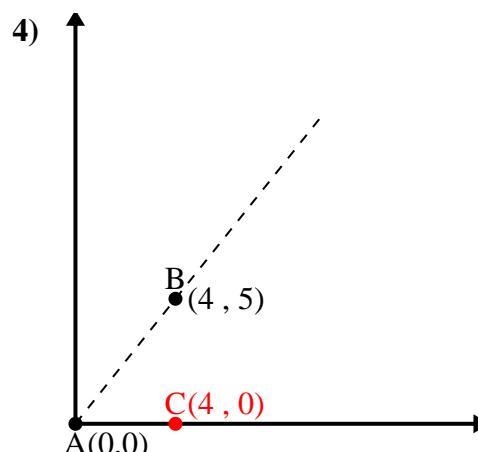
$$\overline{BC} \text{ length} = 5$$

$$(74 + 49 + 25) \div (2 \times 8.6 \times 7)$$

$$0.81$$

$$\cos^{-1}(0.81)$$

$$35.54^\circ$$



$$\overline{AB} \text{ length} = 6.4$$

$$\overline{AC} \text{ length} = 4$$

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

$$(41 + 16 + 25) \div (2 \times 6.4 \times 4)$$

$$0.62$$

$$\cos^{-1}(0.62)$$

$$51.34^\circ$$

- | | |
|----|---------------|
| 1. | 45° |
| 2. | 57.99° |
| 3. | 35.54° |
| 4. | 51.34° |