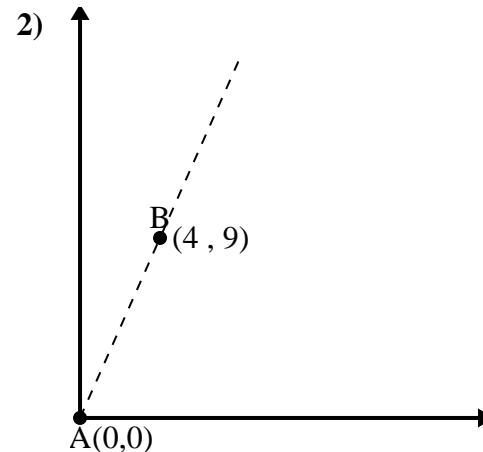
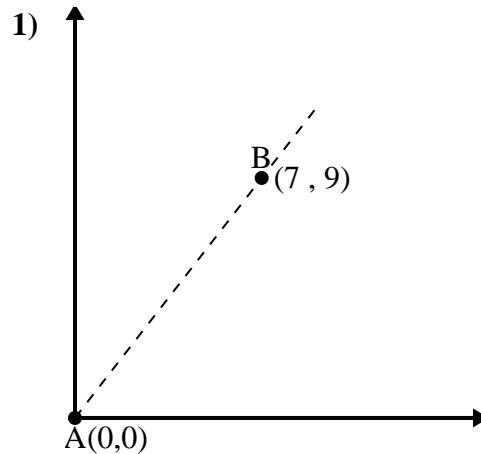




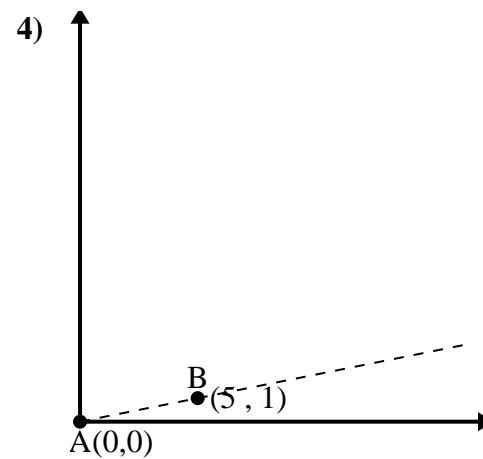
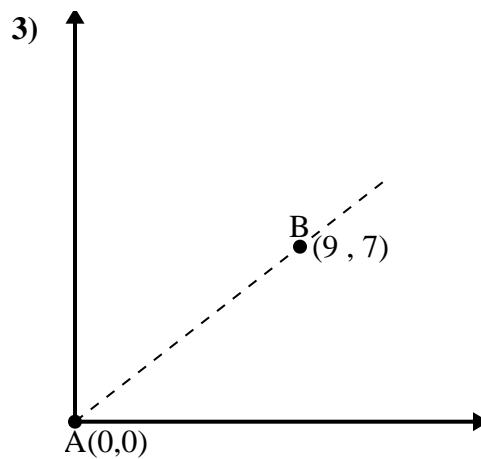
Applying the Law of Cosines

Name: _____

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

Answers

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

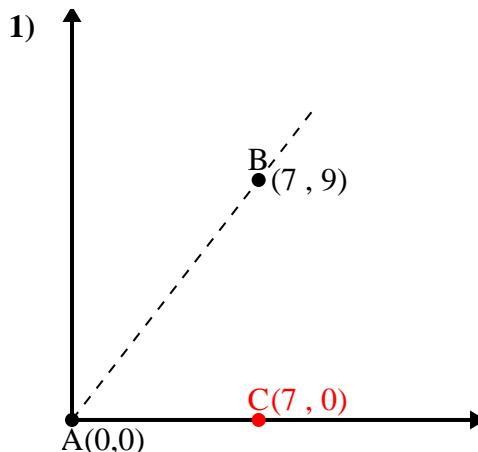




Applying the Law of Cosines

Name: **Answer Key**

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

Answers

$$\overline{AB} \text{ length} = 11.4$$

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

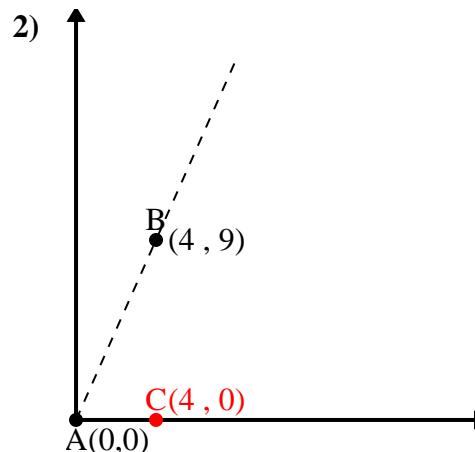
$$\overline{BC} \text{ length} = 9$$

$$(130 + 49 + 81) \div (2 \times 11.4 \times 7)$$

$$0.61$$

$$\cos^{-1}(0.61)$$

$$52.13^\circ$$



$$\overline{AB} \text{ length} = 9.85$$

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

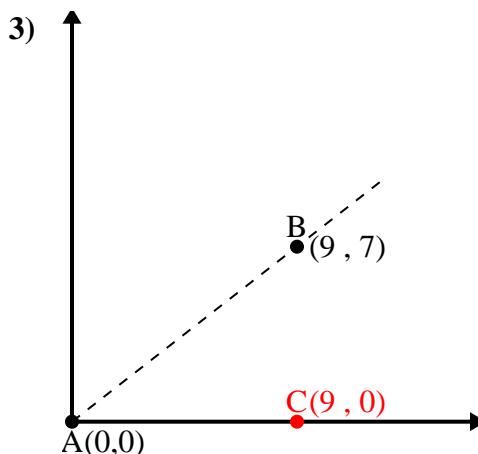
$$\overline{BC} \text{ length} = 9$$

$$(97 + 16 + 81) \div (2 \times 9.85 \times 4)$$

$$0.41$$

$$\cos^{-1}(0.41)$$

$$66.04^\circ$$



$$\overline{AB} \text{ length} = 11.4$$

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

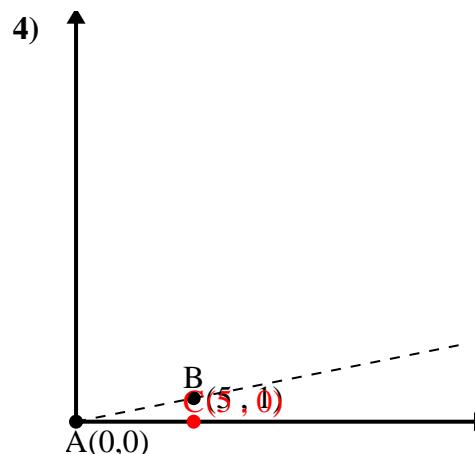
$$\overline{BC} \text{ length} = 7$$

$$(130 + 81 + 49) \div (2 \times 11.4 \times 9)$$

$$0.79$$

$$\cos^{-1}(0.79)$$

$$37.87^\circ$$



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

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

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

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

$$0.98$$

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

$$11.31^\circ$$

1. **52.13°**
2. **66.04°**
3. **37.87°**
4. **11.31°**