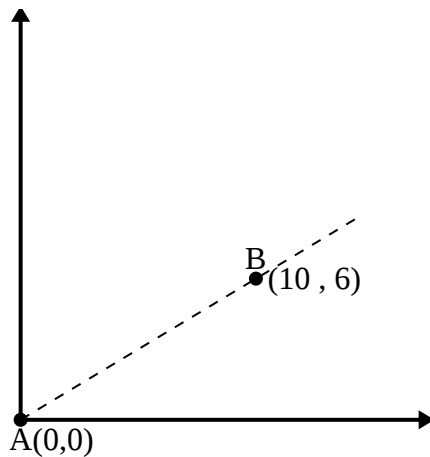


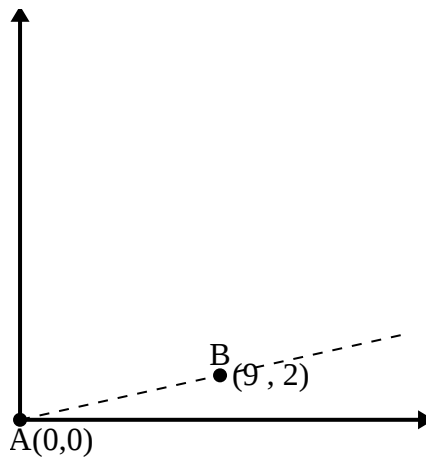


Use the law of Cosines to find the point B's angle relative to point A.

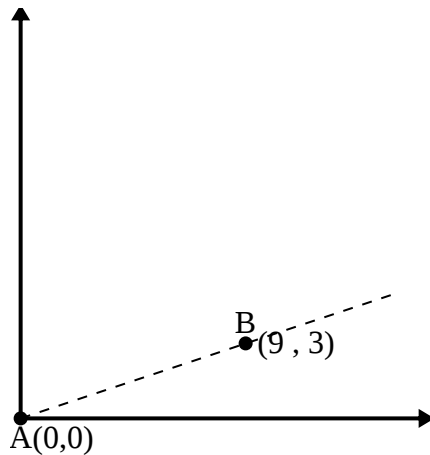
1)



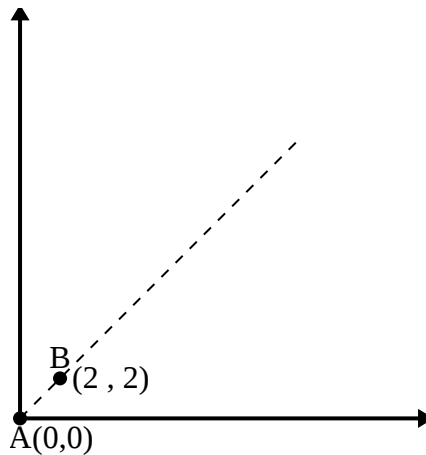
2)



3)



4)

**Answers**

1. _____

2. _____

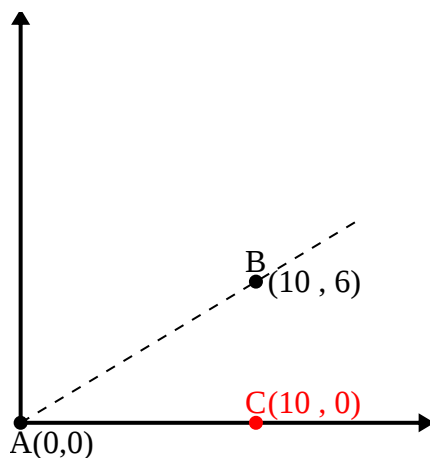
3. _____

4. _____



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

1)



$$\overline{AB} \text{ length} = 11.66$$

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

$$\overline{BC} \text{ length} = 6$$

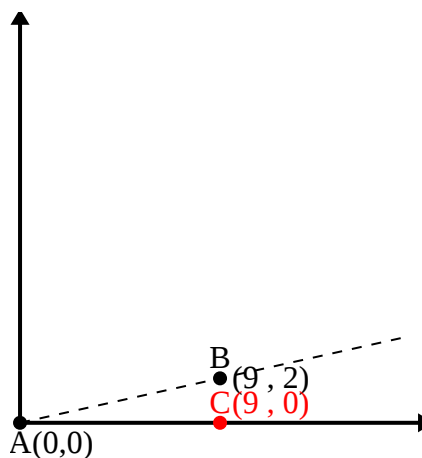
$$(136 + 100 + 36) \div (2 \times 11.66 \times 10)$$

$$0.86$$

$$\cos^{-1}(0.86)$$

$$30.96^\circ$$

2)



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

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

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

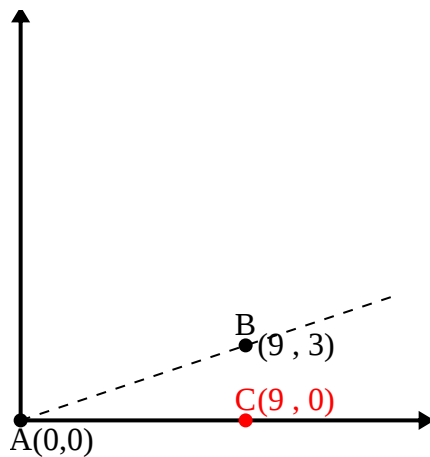
$$(85 + 81 + 4) \div (2 \times 9.22 \times 9)$$

$$0.98$$

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

$$12.53^\circ$$

3)



$$\overline{AB} \text{ length} = 9.49$$

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

$$\overline{BC} \text{ length} = 3$$

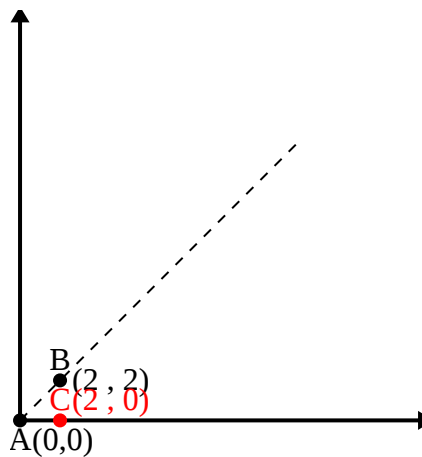
$$(90 + 81 + 9) \div (2 \times 9.49 \times 9)$$

$$0.95$$

$$\cos^{-1}(0.95)$$

$$18.43^\circ$$

4)



$$\overline{AB} \text{ length} = 2.83$$

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

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

$$(8 + 4 + 4) \div (2 \times 2.83 \times 2)$$

$$0.71$$

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

$$45^\circ$$

Answers

1. 30.96°

2. 12.53°

3. 18.43°

4. 45°