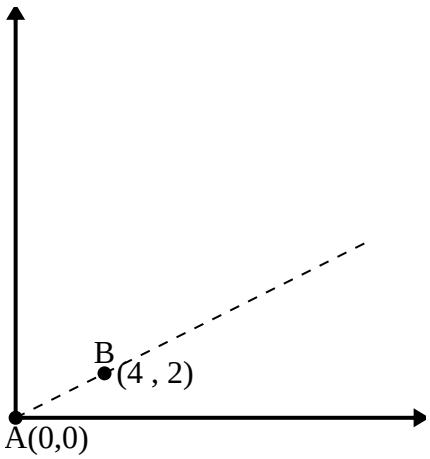
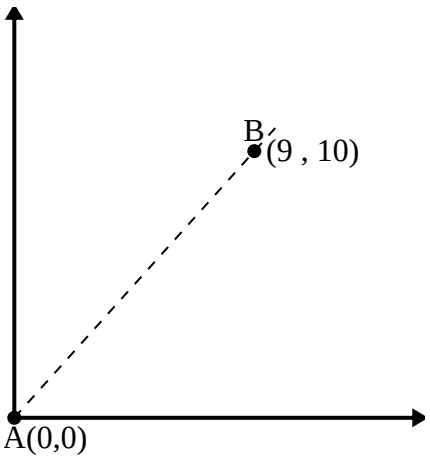
Use the law of Cosines to find the point B's angle relative to point A.

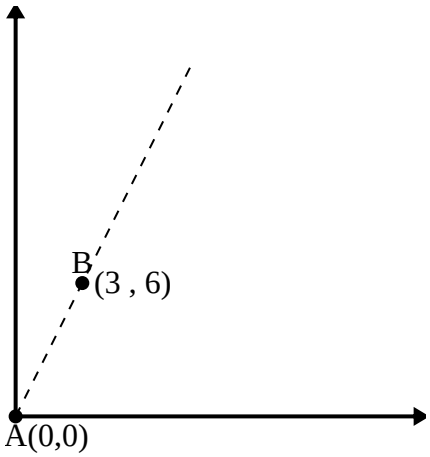
1)



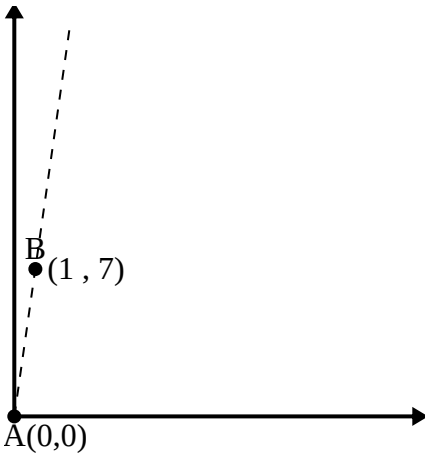
2)



3)



4)

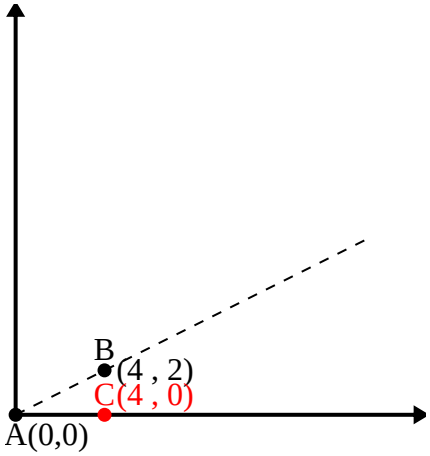


Answers

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

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

1)



$\overline{AB}$ length = 4.47

$\overline{AC}$ length = 4

$\overline{BC}$ length = 2

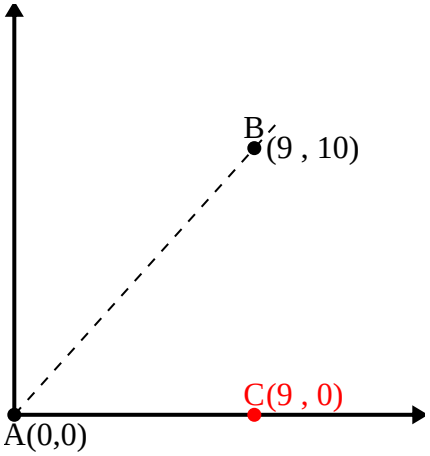
(20 + 16 + 4) ÷ (2 × 4.47 × 4)

0.89

$\cos^{-1}(0.89)$

26.57°

2)



$\overline{AB}$ length = 13.45

$\overline{AC}$ length = 9

$\overline{BC}$ length = 10

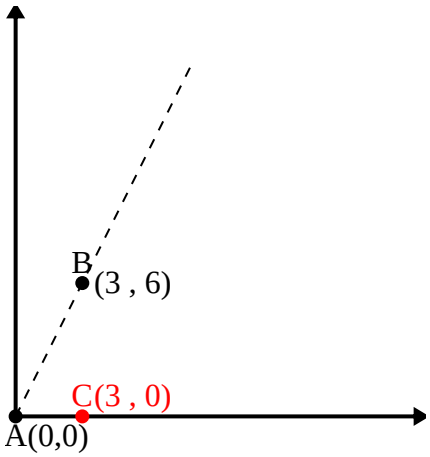
(181 + 81 + 100) ÷ (2 × 13.45 × 9)

0.67

$\cos^{-1}(0.67)$

48.01°

3)



$\overline{AB}$ length = 6.71

$\overline{AC}$ length = 3

$\overline{BC}$ length = 6

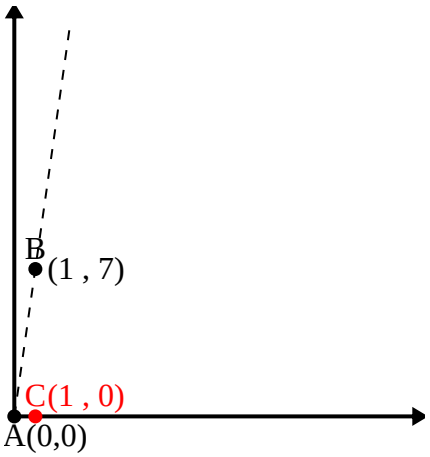
(45 + 9 + 36) ÷ (2 × 6.71 × 3)

0.45

$\cos^{-1}(0.45)$

63.43°

4)



$\overline{AB}$ length = 7.07

$\overline{AC}$ length = 1

$\overline{BC}$ length = 7

(50 + 1 + 49) ÷ (2 × 7.07 × 1)

0.14

$\cos^{-1}(0.14)$

81.87°

Answers

1. **26.57°**
2. **48.01°**
3. **63.43°**
4. **81.87°**