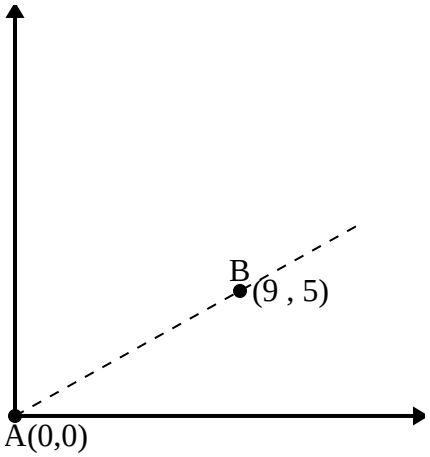
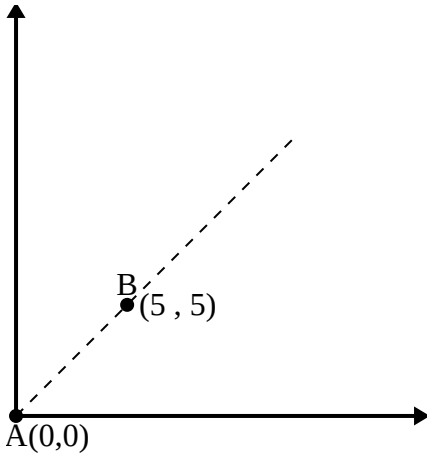
Use the law of Cosines to find the point B's angle relative to point A.

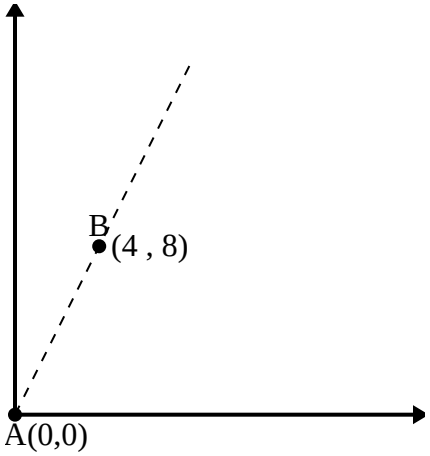
1)



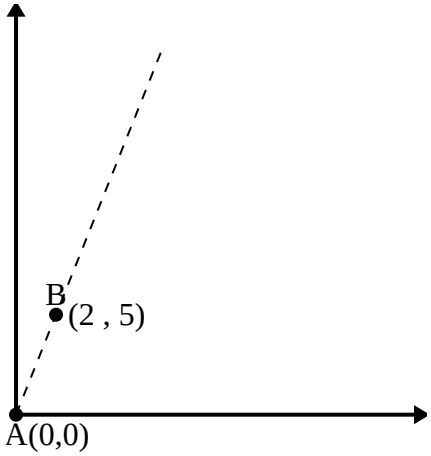
2)



3)



4)



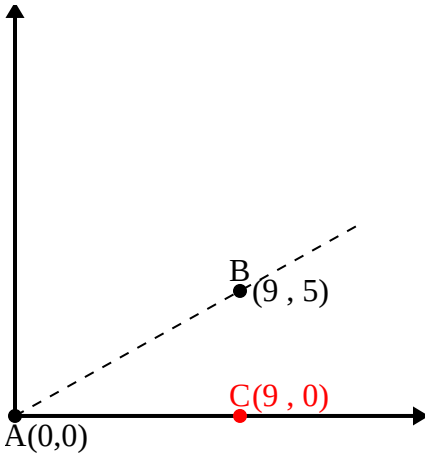
Answers

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

1-4	75	50	25	0

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

1)



$\overline{AB}$ length = 10.3

$\overline{AC}$ length = 9

$\overline{BC}$ length = 5

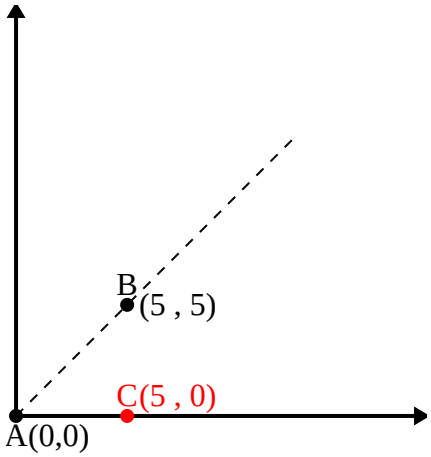
$(106 + 81 + 25) \div (2 \times 10.3 \times 9)$

0.87

$\cos^{-1}(0.87)$

29.05°

2)



$\overline{AB}$ length = 7.07

$\overline{AC}$ length = 5

$\overline{BC}$ length = 5

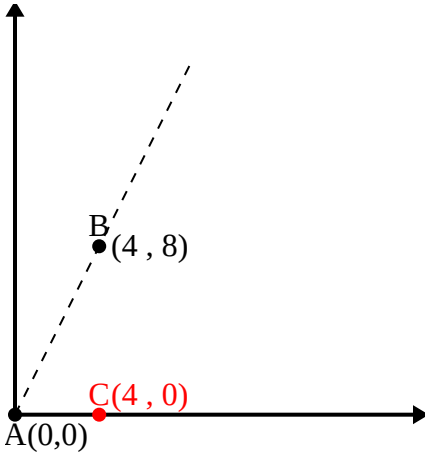
$(50 + 25 + 25) \div (2 \times 7.07 \times 5)$

0.71

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

45°

3)



$\overline{AB}$ length = 8.94

$\overline{AC}$ length = 4

$\overline{BC}$ length = 8

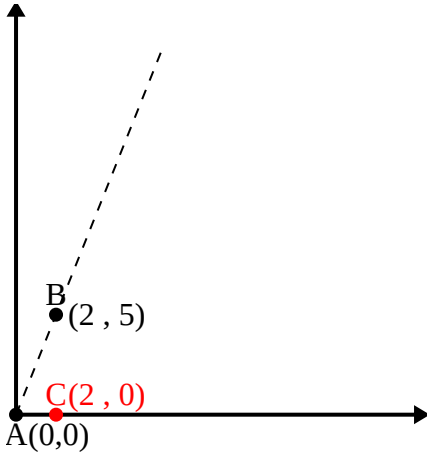
$(80 + 16 + 64) \div (2 \times 8.94 \times 4)$

0.45

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

63.43°

4)



$\overline{AB}$ length = 5.39

$\overline{AC}$ length = 2

$\overline{BC}$ length = 5

$(29 + 4 + 25) \div (2 \times 5.39 \times 2)$

0.37

$\cos^{-1}(0.37)$

68.2°

Answers

1. **29.05°**
2. **45°**
3. **63.43°**
4. **68.2°**