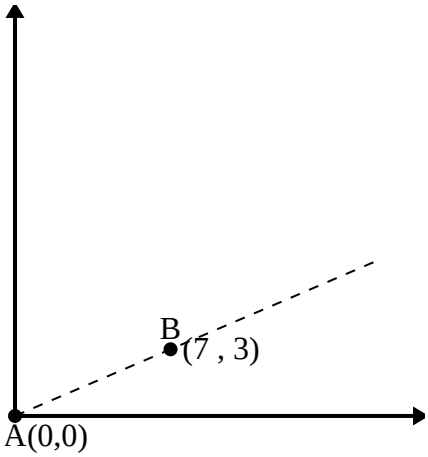
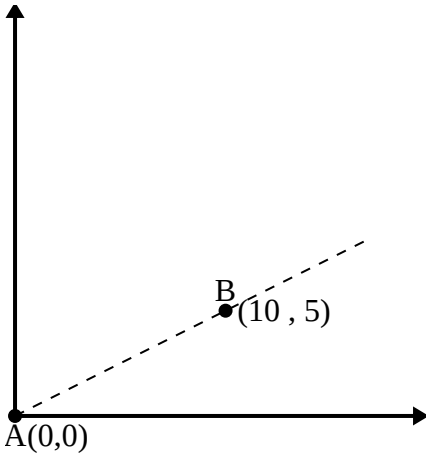
Use the law of Cosines to find the point B's angle relative to point A.

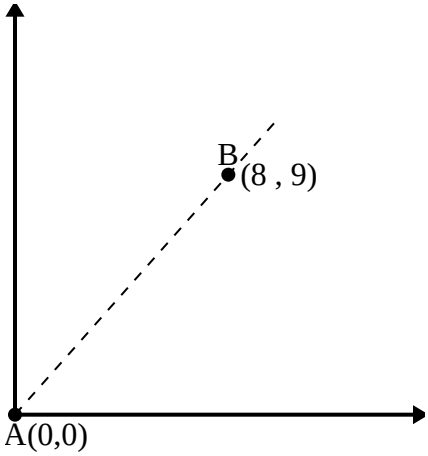
1)



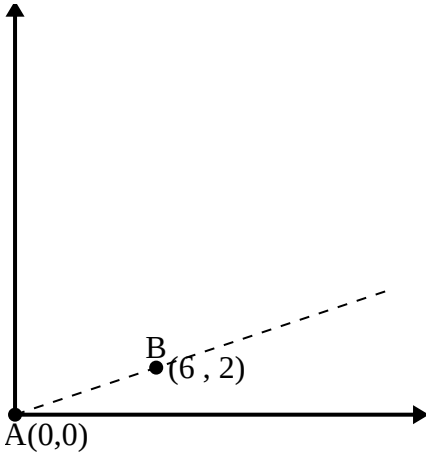
2)



3)



4)



Answers

1. _____

2. _____

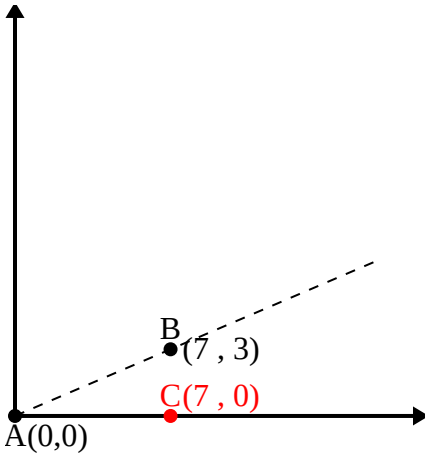
3. _____

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 = 7.62

$\overline{AC}$ length = 7

$\overline{BC}$ length = 3

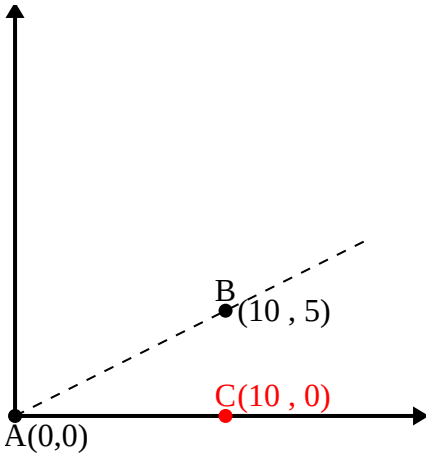
(58 + 49 + 9) ÷ (2 × 7.62 × 7)

0.92

$\cos^{-1}(0.92)$

23.2°

2)



$\overline{AB}$ length = 11.18

$\overline{AC}$ length = 10

$\overline{BC}$ length = 5

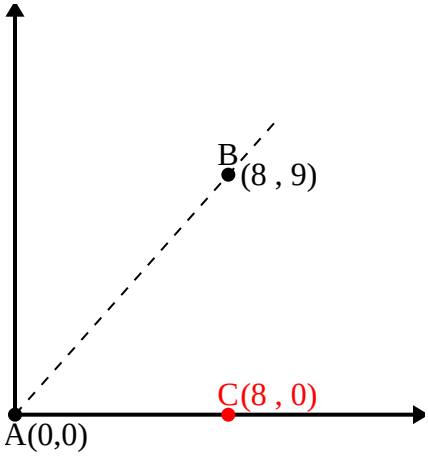
(125 + 100 + 25) ÷ (2 × 11.18 × 10)

0.89

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

26.57°

3)



$\overline{AB}$ length = 12.04

$\overline{AC}$ length = 8

$\overline{BC}$ length = 9

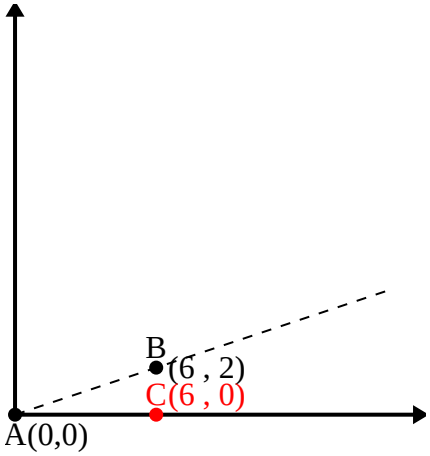
(145 + 64 + 81) ÷ (2 × 12.04 × 8)

0.66

$\cos^{-1}(0.66)$

48.37°

4)



$\overline{AB}$ length = 6.32

$\overline{AC}$ length = 6

$\overline{BC}$ length = 2

(40 + 36 + 4) ÷ (2 × 6.32 × 6)

0.95

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

18.43°

Answers

1. **23.2°**
2. **26.57°**
3. **48.37°**
4. **18.43°**

1-4	75	50	25	0