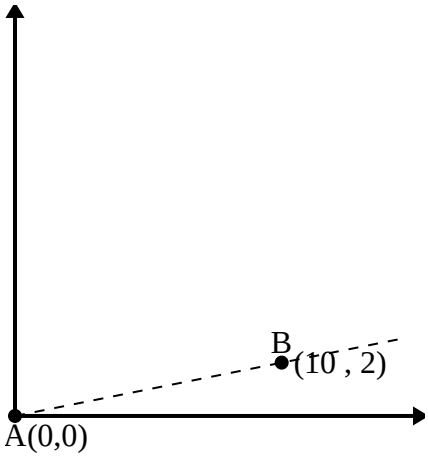
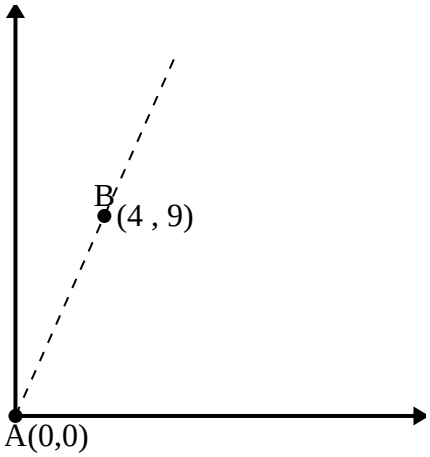
Use the law of Cosines to find the point B's angle relative to point A.

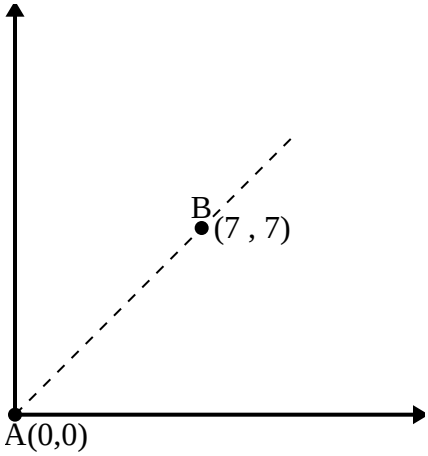
1)



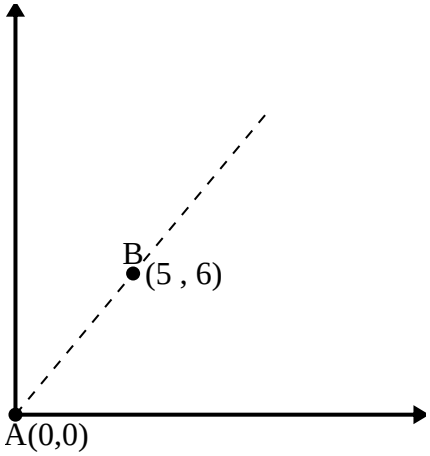
2)



3)



4)



Answers

1. _____

2. _____

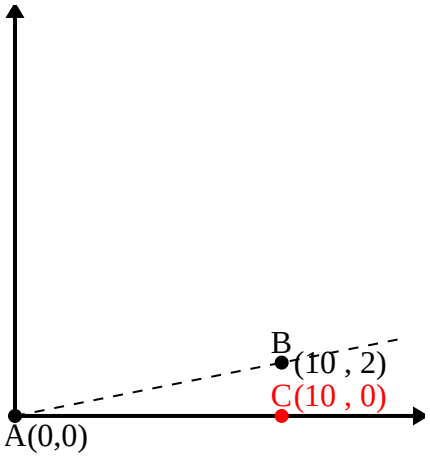
3. _____

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 = 10.2

$\overline{AC}$ length = 10

$\overline{BC}$ length = 2

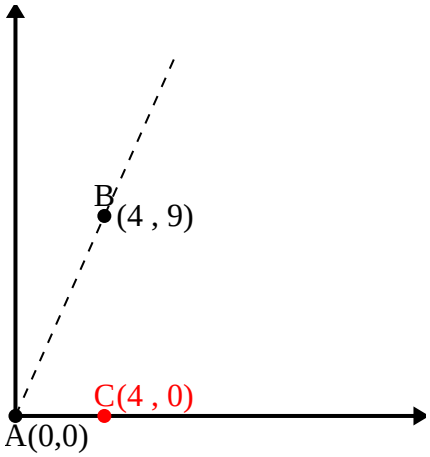
(104 + 100 + 4) ÷ (2 × 10.2 × 10)

0.98

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

11.31°

2)



$\overline{AB}$ length = 9.85

$\overline{AC}$ length = 4

$\overline{BC}$ length = 9

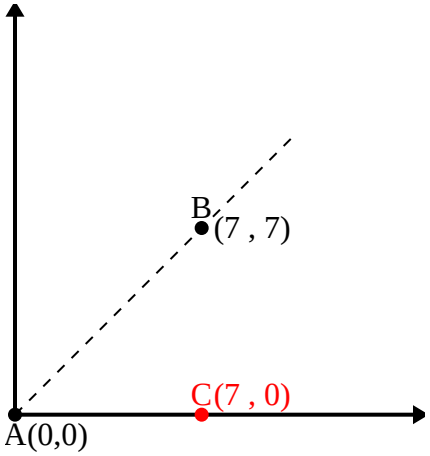
(97 + 16 + 81) ÷ (2 × 9.85 × 4)

0.41

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

66.04°

3)



$\overline{AB}$ length = 9.9

$\overline{AC}$ length = 7

$\overline{BC}$ length = 7

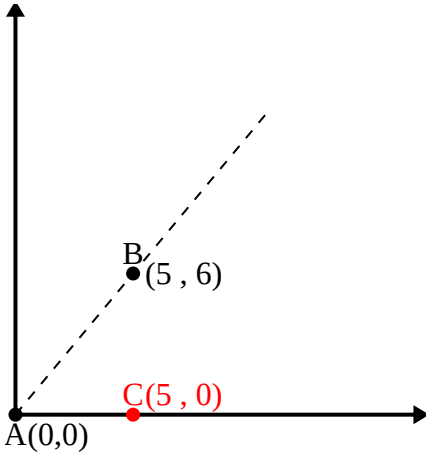
(98 + 49 + 49) ÷ (2 × 9.9 × 7)

0.71

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

45°

4)



$\overline{AB}$ length = 7.81

$\overline{AC}$ length = 5

$\overline{BC}$ length = 6

(61 + 25 + 36) ÷ (2 × 7.81 × 5)

0.64

$\cos^{-1}(0.64)$

50.19°

Answers

1. **11.31°**
2. **66.04°**
3. **45°**
4. **50.19°**

1-4	75	50	25	0