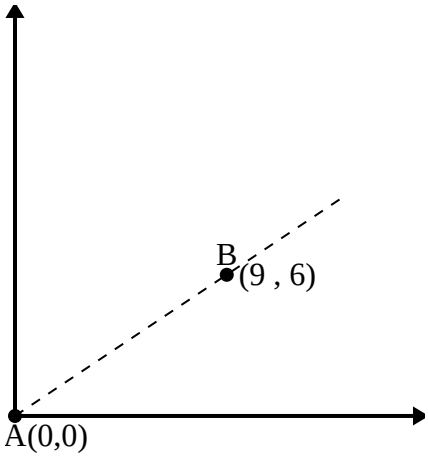
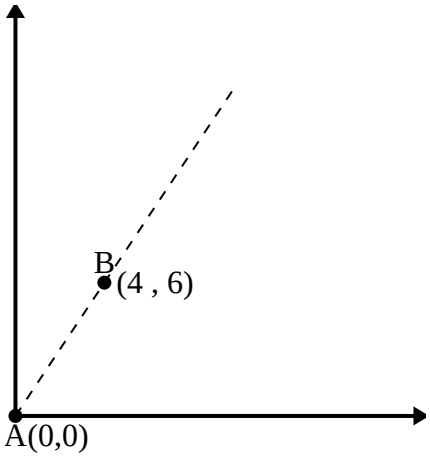
Use the law of Cosines to find the point B's angle relative to point A.

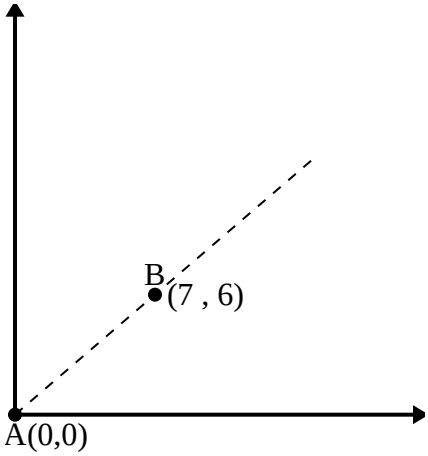
1)



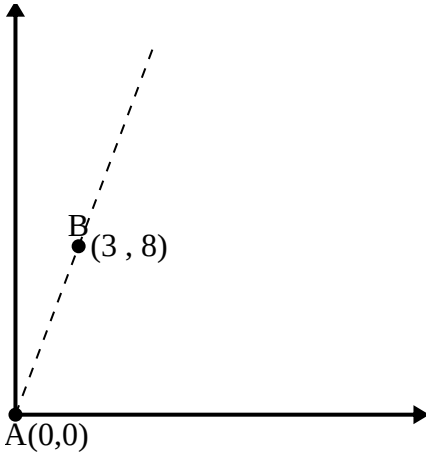
2)



3)



4)



Answers

1. _____

2. _____

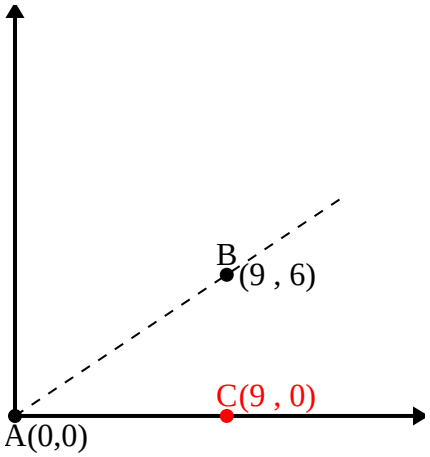
3. _____

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 = 10.82

$\overline{AC}$ length = 9

$\overline{BC}$ length = 6

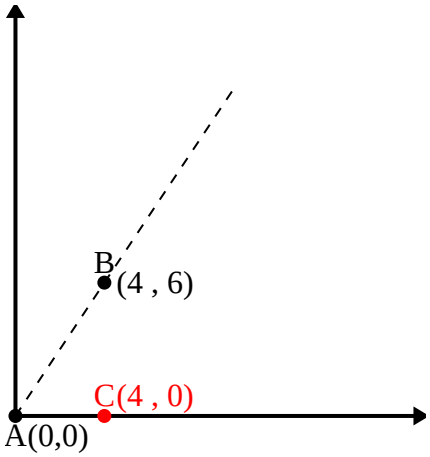
(117 + 81 + 36) ÷ (2 × 10.82 × 9)

0.83

$\cos^{-1}(0.83)$

33.69°

2)



$\overline{AB}$ length = 7.21

$\overline{AC}$ length = 4

$\overline{BC}$ length = 6

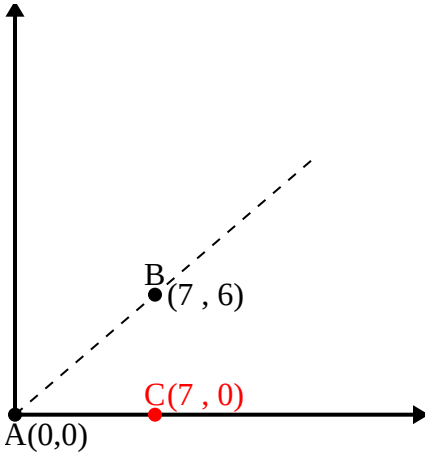
(52 + 16 + 36) ÷ (2 × 7.21 × 4)

0.55

$\cos^{-1}(0.55)$

56.31°

3)



$\overline{AB}$ length = 9.22

$\overline{AC}$ length = 7

$\overline{BC}$ length = 6

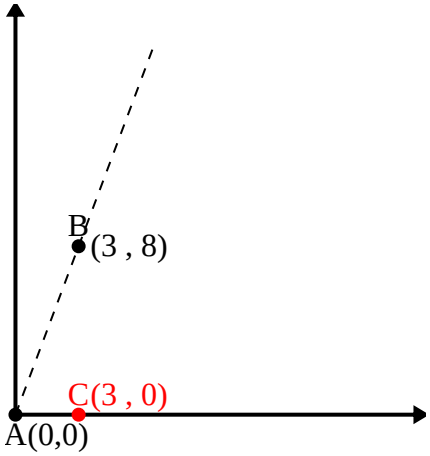
(85 + 49 + 36) ÷ (2 × 9.22 × 7)

0.76

$\cos^{-1}(0.76)$

40.6°

4)



$\overline{AB}$ length = 8.54

$\overline{AC}$ length = 3

$\overline{BC}$ length = 8

(73 + 9 + 64) ÷ (2 × 8.54 × 3)

0.35

$\cos^{-1}(0.35)$

69.44°

Answers

1. **33.69°**
2. **56.31°**
3. **40.6°**
4. **69.44°**

1-4	75	50	25	0