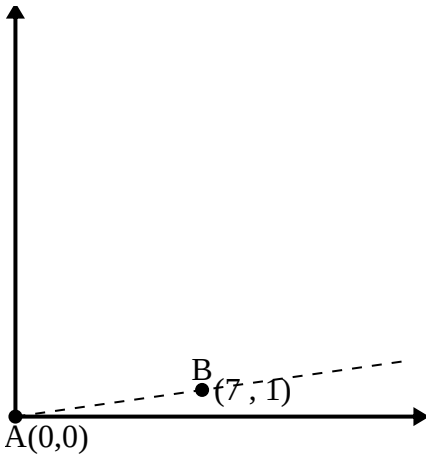
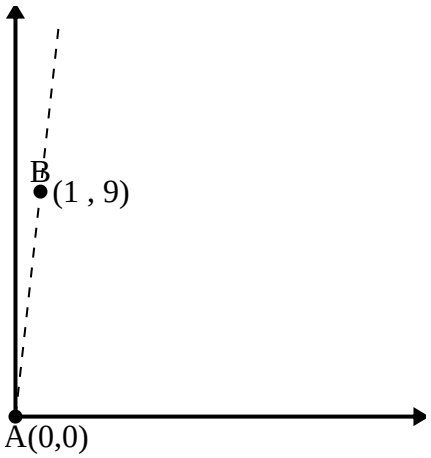
Use the law of Cosines to find the point B's angle relative to point A.

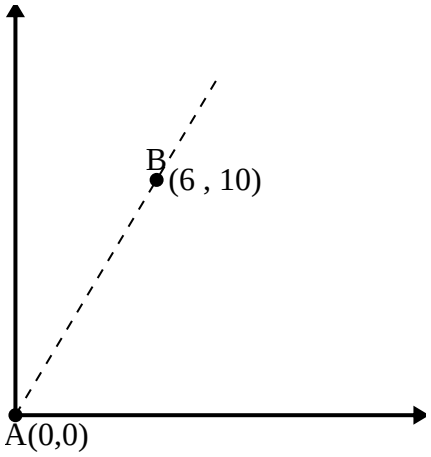
1)



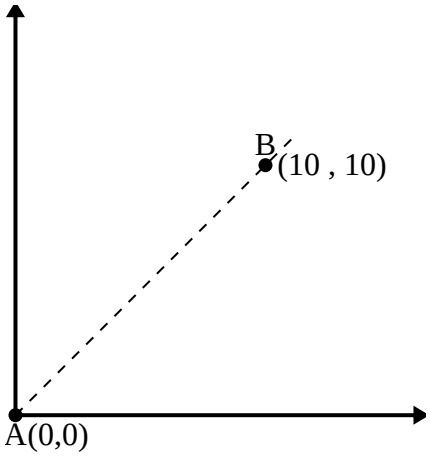
2)



3)



4)



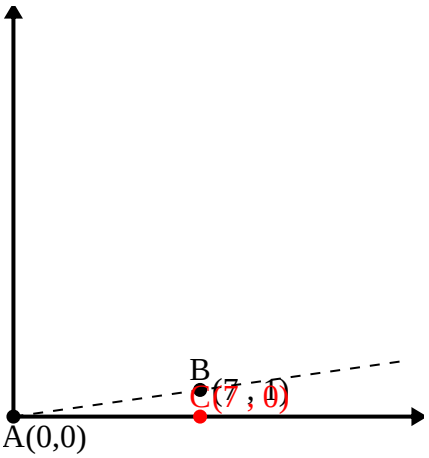
Answers

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 = 7.07

$\overline{AC}$ length = 7

$\overline{BC}$ length = 1

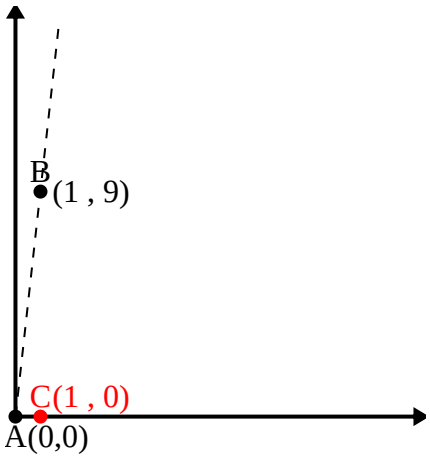
$(50 + 49 + 1) \div (2 \times 7.07 \times 7)$

0.99

$\cos^{-1}(0.99)$

8.13°

2)



$\overline{AB}$ length = 9.06

$\overline{AC}$ length = 1

$\overline{BC}$ length = 9

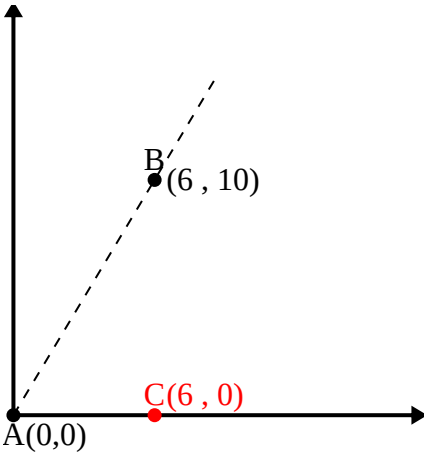
$(82 + 1 + 81) \div (2 \times 9.06 \times 1)$

0.11

$\cos^{-1}(0.11)$

83.66°

3)



$\overline{AB}$ length = 11.66

$\overline{AC}$ length = 6

$\overline{BC}$ length = 10

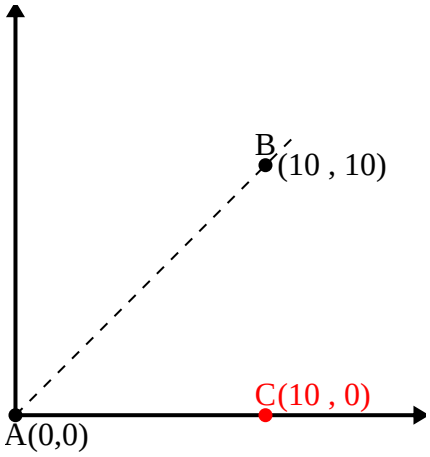
$(136 + 36 + 100) \div (2 \times 11.66 \times 6)$

0.51

$\cos^{-1}(0.51)$

59.04°

4)



$\overline{AB}$ length = 14.14

$\overline{AC}$ length = 10

$\overline{BC}$ length = 10

$(200 + 100 + 100) \div (2 \times 14.14 \times 10)$

0.71

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

45°

Answers

1. **8.13°**
2. **83.66°**
3. **59.04°**
4. **45°**