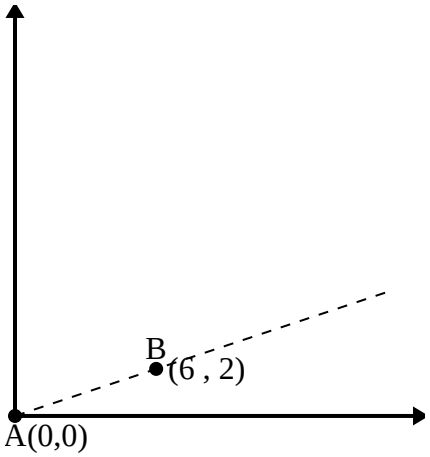
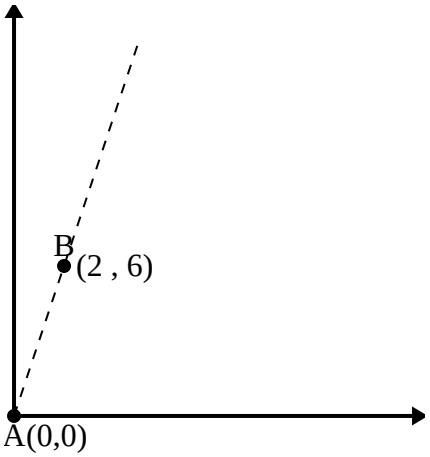
Use the law of Cosines to find the point B's angle relative to point A.

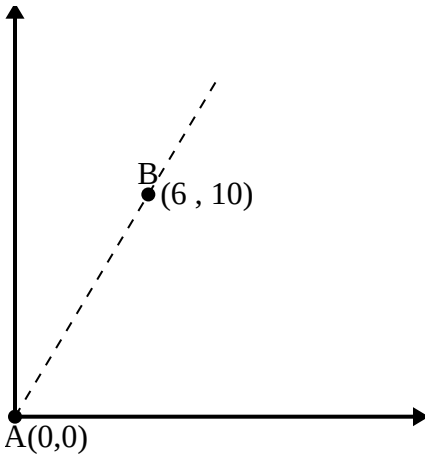
1)



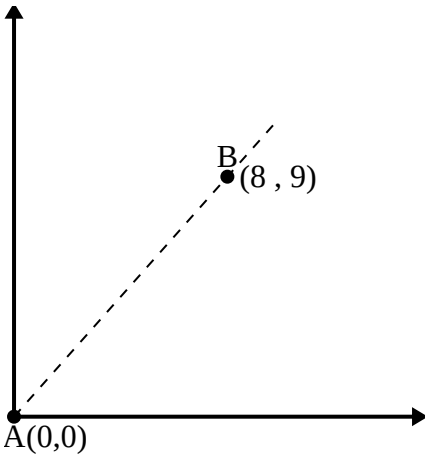
2)



3)



4)



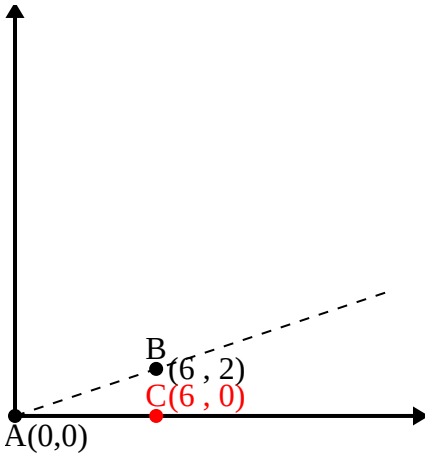
Answers

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

1-4	75	50	25	0

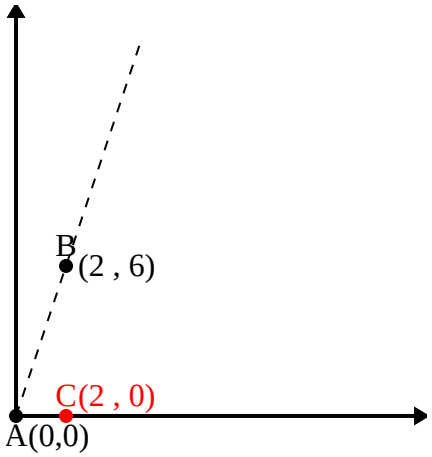
Use the law of Cosines to find the point B's angle relative to point A.

1)



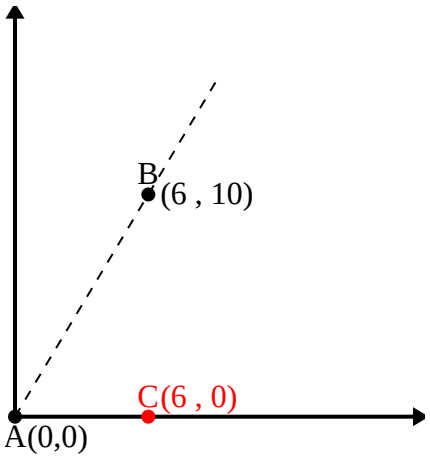
$\overline{AB}$ length = 6.32
$\overline{AC}$ length = 6
$\overline{BC}$ length = 2
(40 + 36 + 4) ÷ (2 × 6.32 × 6)
0.95
$\cos^{-1}(0.95)$
18.43°

2)



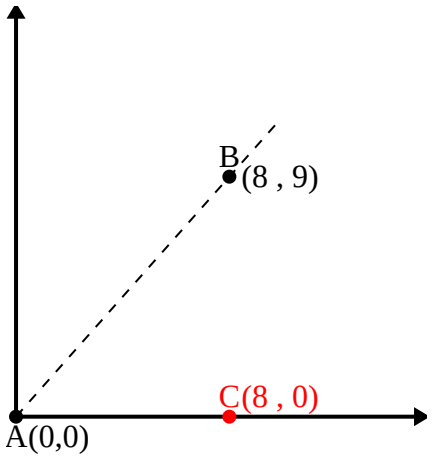
$\overline{AB}$ length = 6.32
$\overline{AC}$ length = 2
$\overline{BC}$ length = 6
(40 + 4 + 36) ÷ (2 × 6.32 × 2)
0.32
$\cos^{-1}(0.32)$
71.57°

3)



$\overline{AB}$ length = 11.66
$\overline{AC}$ length = 6
$\overline{BC}$ length = 10
(136 + 36 + 100) ÷ (2 × 11.66 × 6)
0.51
$\cos^{-1}(0.51)$
59.04°

4)



$\overline{AB}$ 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°

Answers

1. **18.43°**
2. **71.57°**
3. **59.04°**
4. **48.37°**

1-4	75	50	25	0