

TB(1B) Ch. 10 Introduction to Coordinates

Multiple Choice Questions

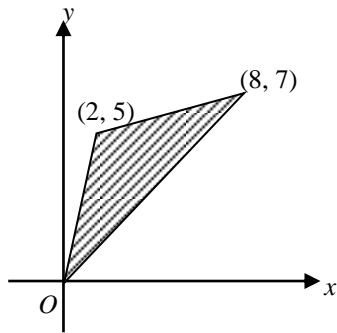
1. [16-17 Standardized Test, Q5]

If $A(2, -3)$ is rotated anti-clockwise about O through 90° to B . Find the coordinates of B .

- A. $(-3, -2)$
- B. $(-2, -3)$
- C. $(2, 3)$
- D. $(3, 2)$

2. [16-17 Standardized Test, Q10]

Find the area of the shaded region.



- A. 6 sq. units
- B. 8 sq. units
- C. 10.5 sq. units
- D. 13 sq. units

3. [16-17 Final Exam, Q9]

Let $A(5, -3)$ and B be two points on a rectangular coordinate plane. If $AB = 8$, which of the following points may be the coordinates of B ?

- I. $(13, -3)$
 - II. $(9, 1)$
 - III. $(5, 5)$
- A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I, II and III

4. [17-18 Final Exam, Q7]

If $(3a + 5, -4)$ and $(3, 2a)$ two points on a horizontal line, then $a =$

- A. -2 . B. $-\frac{2}{3}$.
C. $\frac{2}{3}$. D. 2 .

5. [17-18 Final Exam, Q18]

$P(2017, 45^\circ)$ and $Q(2018, y^\circ)$ are two points on a polar coordinate plane with pole O . If P , Q , and O lie on the same straight line, which of the following can be value(s) of y ?

- I. 45
II. 135
III. 225
- A. I only
B. I and III only
C. II and III only
D. I, II and III

6. [18-19 Final Exam, Q9]

Which of the following statements are correct?

- I. $P(0, -12)$ is a point on the y -axis.
II. $Q(-9, -3)$ is a point in quadrant III.
III. $R(5, -4)$ and $S(5, -9)$ lie on the same horizontal line.
- A. I and II only
B. I and III only
C. II and III only
D. I, II and III

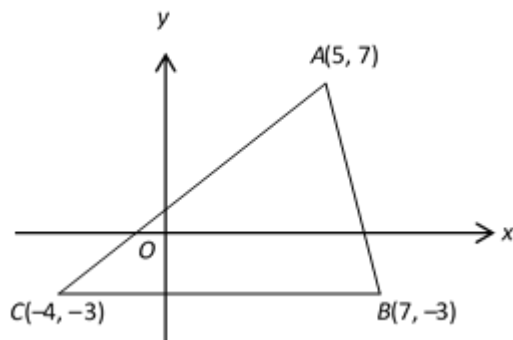
7. [18-19 Final Exam, Q19]

In a polar coordinate system, O is the pole. The polar coordinates of A , B and C are $(16, 36^\circ)$, $(12, 126^\circ)$ and $(9, 216^\circ)$ respectively. It is given that $AB = 20$ and $AB \perp BC$. By considering area of $\triangle ABC$, find BC .

- A. 12.6
- B. 15
- C. 25.2
- D. 30

8. [20-21 Final Exam, #11]

In the figure, the area of $\triangle ABC =$



- A. 20 square units.
- B. 49.5 square units.
- C. 55 square units.
- D. 110 square units.

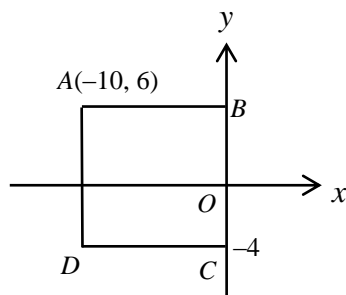
9. [20-21 Final Exam, #13]

L is a straight line parallel to the x -axis and passing through $B(3, 4)$. If $A(1, -5)$ is reflected with respect to L to C , find the coordinates of C .

- A. (1, 11)
- B. (1, 13)
- C. (5, -5)
- D. (7, -5)

10. [20-21 Final Exam, #20]

In the figure, B and C lie on y -axis and $ABCD$ is a quadrilateral where AB and CD are parallel to x -axis and $AD \parallel BC$. Which of the following is/are true?



- I. The coordinates of D are $(-4, -10)$.
- II. $(-5, -3)$ is a point inside the rectangle $ABCD$.
- III. $AD = DC$.

- A. I only
- B. II only
- C. I and II only
- D. II and III only

~ End ~