TB(1B) Ch. 10 Introduction to Coordinates
Multiple Choice Questions

1. **[11-12 Standardized Test 2 Q2]**
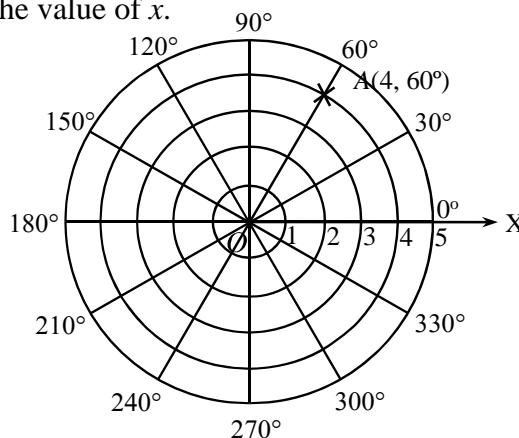
   $M(-4, 2)$ is translated 5 units to the right to M'.   The coordinates of M' are

   A. $(-9, 2)$.
   B. $(-4, 7)$.
   C. $(1, -2)$.
   D. $(1, 2)$.

2. **[11-12 Standardized Test 2 Q10]**

   In the polar coordinate plane on the right, the polar coordinates of point A are $(4, 60^\circ)$. If point B is $(x, 330^\circ)$ and the area of $\triangle AOB$ is 6 square units, find the value of x.

   A.   1.5   **B.**   3
   C.   4   **D.**   5
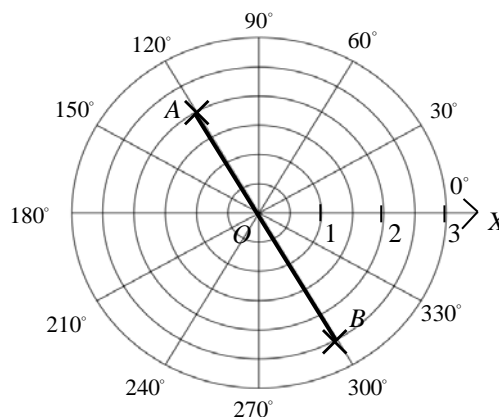

3. **[11-12 Final Exam Q13]**

   A and B are on the polar coordinate plane. Which of the following are correct?

   I.   The polar coordinates of A are $(2, 120^\circ)$.
   II. The length of AB is 4.5 units.
   III. The polar coordinates of B are $(3, 300^\circ)$.

   A. I and II only   **B.** I and III only
   C. II and III only   **D.** I, II and III

4. **[11-12 Final Exam Q16]**

   The vertices of ΔXYZ are $X(-3, 4)$, $Y(-4, -3)$ and $Z(-4, 3)$. X, Y and Z are reflected about the y-axis to X', Y' and Z' respectively. Which of the following are correct?

   I. X' and Z' are in quadrant I.
      II.   The length of $Y'Z'$ is 6 units.
      III.   The coordinates of Y' are (4, –3).

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

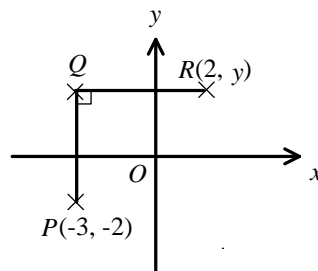5. **[12-13 Standardized Test 2 Q2]**

   If $P(-5, 6)$ is rotated in a clockwise direction about O through 270° to P', the coordinates of P' are

   A. (5, –6).   **B.** (6, –5).
   C. (–5, –6).   **D.** (–6, –5).

6. **[12-13 Standardized Test 2 Q8]**

   The figure shows three points $P(-3, -2)$, Q and $R(2, y)$. $PQ \perp QR$ and $PQ = QR$. Find the value of y.

   A. –3
   B. –2
   C. 2
   D. 3

7. **[12-13 Final Exam Q6]**

   A is rotated clockwise about the origin through 90° to obtain the image (1, –2). The coordinates of A are

   A. (–2, –1).   **B.** (–1, –2).
   C. (1, 2).   **D.** (2, 1).

8. **[12-13 Final Exam Q20]**

   If $A(-7, 8)$ is reflected about line L to $B(2, 8)$, then L is a line

   A. passing through (–2.5, 0).
   B. passing through (0, 8).
   C. perpendicular to y-axis.
   D. passing through the origin.

9. [13-14 Final Exam]

A(3.5, 320°) and B(3.5, 230°) are points on a polar coordinate plane. What type of triangle is ΔAOB?

    A. Equilateral triangle
    B. Obtuse-angled triangle
    C. Right-angled scalene triangle
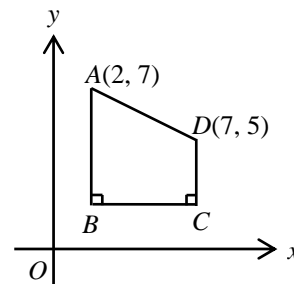   **D.** Right-angled isosceles triangle

10. [13-14 Final Exam]

If P(7, –11) is reflected about the y-axis to Q, find the coordinates of Q.

    A. (–7, 11)   **B.** (–7, –11)
    C. (7, 11)   **D.** (–11, 7)

11. [13-14 Final Exam]

In the figure, AB and CD are perpendicular to CB and CB is parallel to the x-axis. If the area of trapezium $ABCD$ is 10 sq. units, find the y-coordinate of B.

    A. 2   **B.** 3
    C. 4   **D.** 5

12. [14-15 Standardized Test Q4]

Which of the following points lies on the x-axis in a rectangular coordinate plane?

    A. (9 , 7)
    B. (0 , 3)
    C. (4 , 0)
    D. (–3 , –3)
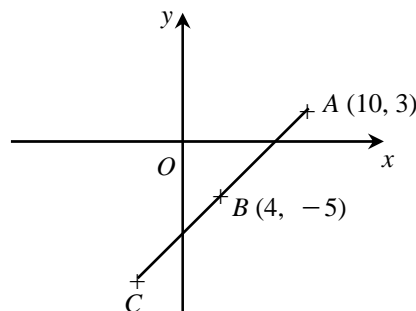
13. [14-15 Standardized Test Q8]

A(3 , 7), B(3 , 5) and C(m , 8) are the vertices of ΔABC. If the area of ΔABC is 4 sq. units, find the value(s) of m.

    A. 7   **B.** –1
    C. –7 or 1   **D.** 7 or –1

14. **[14-15 Final Exam Q15]**

In the figure, A (10, 3), B (4, -5) and C are points on a straight line. If $AB = BC$, find the coordinates of C.

A. $(-2, -13)$ **B.** $(-4, -11)$

C. $(-2, -11)$ **D.** $(-4, -13)$

15. **[15-16 Final Exam, Q19]**

The point A (1, 3) is reflected about the y-axis and then rotated anti-clockwise about the origin through 90º. Find the coordinates of the image of A.

A. $(-1, -3)$ **B.** $(-3, -1)$
C. $(-1, 3)$ **D.** $(3, 1)$

16. **[15-16 Standardized Test, Q9]**

It is given that a and b are two negative numbers. If a point $S(a, b)$ is rotated clockwise about the origin through 90°, and then reflected about the x-axis to T. In which quadrant does T lie?

A. Quadrant I
B. Quadrant II
C. Quadrant III
D. Quadrant IV

17. **[15-16 Standardized Test, Q10]**

It is given that L is a horizontal line which passes through the point (1, –1). If a point M on the coordinate plane is translated to the left by 4 units, and then reflected about L to (–3, 3), what is the x-coordinate of M?

A. –7
B. –5
C. –1
D. 1

18. **[15-16 Standardized Test, Q5]**

Which of the following statements are **FALSE**?
I.   Point (0, –7) lies on the y-axis.
II.   (2, –3) and (–3, –3) lie on the same vertical line.
III.   The distance between (5, 2) and (5, –2) is the same as the distance between (5, –2) and (–5, 2).

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

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