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

1. [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

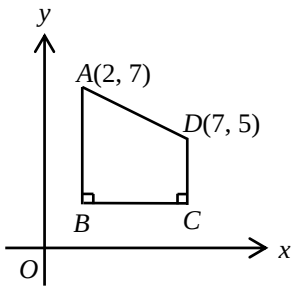
2. [13-14 Final Exam]

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.** $(-11, 7)$

3. [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

4. [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. $(-3 , -3)$

5. [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.

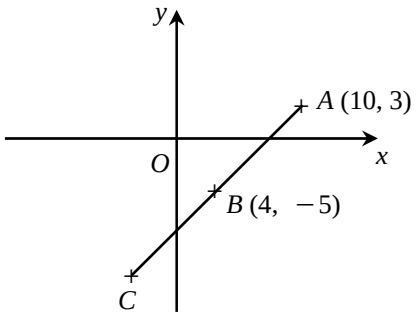
A. 7 **B.** -1
C. -7 or 1 **D.** 7 or -1

6. [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.** $(-4, -13)$



7. [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.

8. [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

9. [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

10. [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 90°. Find the coordinates of the image of A.

A. (–1, –3) **B.** (–3, –1)
C. (–1, 3) **D.** (3, 1)

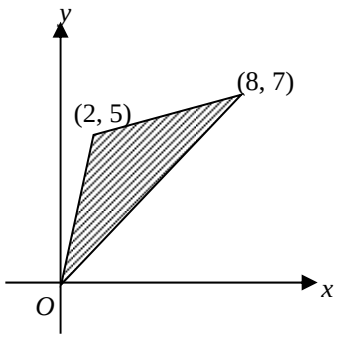
11. [16-17 Standardized Test, Q5]

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. $(3, 2)$

12. [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

13. [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

14. [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.

15. [17-18 Final Exam, Q18]

$P(2017, 45°)$ and $Q(2018, y°)$ 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

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