AME CET Mathematics

Sample Paper – 8

Duration: 20 Minutes **Maximum Marks: 80**

Instructions

- This paper contains **20** Multiple Choice Questions (Single Correct Answer), modelled on the Mathematics section of **AME CET** entrance.
- Each correct answer carries **+4 marks**. Each wrong answer carries -1 **mark**. Unattempted questions carry **0 marks**.
- Only **one** option is correct per question. Choose carefully.
- Syllabus level: **Class 11 and 12 NCERT Mathematics** (Sets and Relations to Probability and Statistics).
- Use of mobile phones, calculators, or any electronic gadget is strictly prohibited.

Q1. The value of $\int_1^2 \frac{1}{x^2}\,dx$ is:

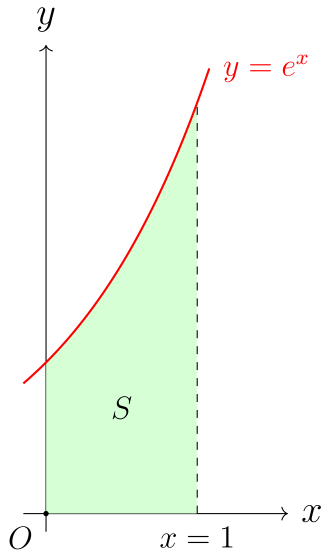
(A) 1
(B) $\frac{1}{2}$
(C) $\frac{3}{2}$
(D) $-\frac{1}{2}$

Q2. The value of $\int_{-1}^{1} (x^2+1)\,dx$ is:

(A) $\frac{2}{3}$
(B) 2
(C) $\frac{8}{3}$

(D) $\frac{4}{3}$

Q3. The area of the region bounded by the curve $y = e^x$, the x-axis, and the lines $x = 0$ and $x = 1$, shaded below, is:



(A) $e - 1$

(B) e

(C) $e + 1$

(D) $1 - e$

Q4. The midpoint of the line segment joining the points $(-2, 5)$ and $(4, -1)$ is:

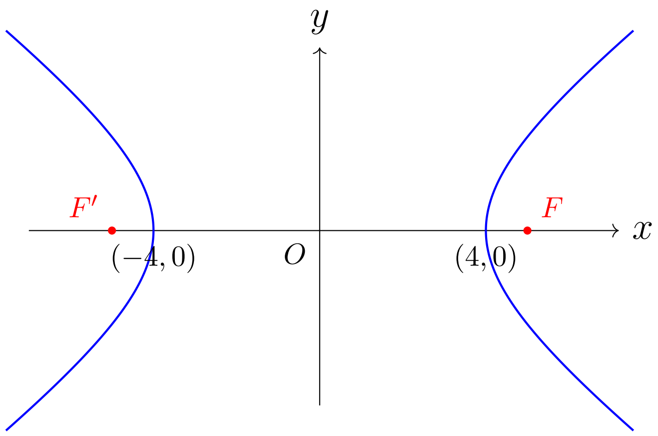
(A) $(3, 2)$

(B) $(2, 1)$

(C) $(1, 3)$

(D) $(1, 2)$

Q5. The eccentricity of the hyperbola $\frac{x^2}{16} - \frac{y^2}{9} = 1$, sketched below, is:



(A) $\frac{5}{4}$

(B) $\frac{4}{5}$

(C) $\frac{3}{4}$

(D) $\frac{5}{3}$

Q6. The equation of the directrix of the parabola $x^2 = 8y$ is:

(A) $y = 2$

(B) $x = -2$

(C) $x = 2$

(D) $y = -2$

Q7. If $A = \begin{pmatrix} 4 & 2 \\ 1 & 3 \end{pmatrix}$, then $\det(A)$ equals:

(A) 14

(B) 10

(C) -10

(D) 12

Q8. If $A = \begin{pmatrix} 1 & 2 \\ 0 & 1 \end{pmatrix}$ and $B = \begin{pmatrix} 2 & 1 \\ 1 & 0 \end{pmatrix}$, then $A + B$ equals:

(A) $\begin{pmatrix} 3 & 2 \\ 1 & 1 \end{pmatrix}$

(B) $\begin{pmatrix} 2 & 3 \\ 1 & 1 \end{pmatrix}$

(C) $\begin{pmatrix} 3 & 3 \\ 1 & 1 \end{pmatrix}$

(D) $\begin{pmatrix} 3 & 3 \\ 0 & 1 \end{pmatrix}$

Q9. $\lim_{x \to 0} \dfrac{e^x - 1}{2x}$ equals:

(A) 1

(B) 2

(C) 0

(D) $\frac{1}{2}$

Q10. If $y = \sqrt{x^2 + 1}$, then $\dfrac{dy}{dx}$ is:

(A) $\dfrac{1}{2\sqrt{x^2+1}}$

(B) $\dfrac{2x}{\sqrt{x^2+1}}$

(C) $\dfrac{x}{\sqrt{x^2+1}}$

(D) $\dfrac{1}{\sqrt{x^2+1}}$

Q11. The value of $\sin^2 30° + \cos^2 60°$ is:

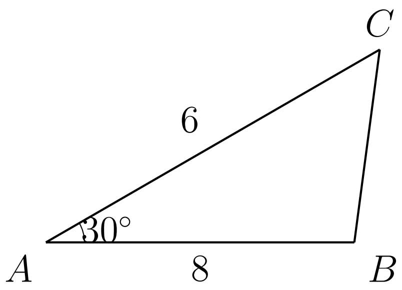
(A) $\frac{1}{2}$

(B) $\frac{3}{4}$

(C) 1

(D) $\frac{1}{4}$

Q12. In triangle ABC, two sides have lengths 6 and 8 with an included angle of $30°$. The area of the triangle is:



(A) 24

(B) 12

(C) $12\sqrt{3}$

(D) 48

Q13. A card is drawn at random from a well-shuffled pack of 52 playing cards. The probability that it is a face card (Jack, Queen, or King) is:

(A) $\frac{1}{13}$

(B) $\frac{4}{13}$

(C) $\frac{3}{13}$

(D) $\frac{1}{4}$

Q14. A box contains 4 red and 5 blue balls. Two balls are drawn simultaneously at random. The probability that both balls are red is:

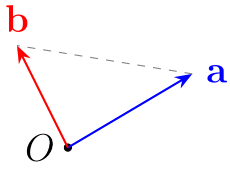
(A) $\frac{2}{9}$

(B) $\frac{1}{6}$

(C) $\frac{5}{18}$

(D) $\frac{4}{9}$

Q15. If $\mathbf{a} = 2\hat{i} - \hat{j} + 3\hat{k}$ and $\mathbf{b} = \hat{i} + 4\hat{j} - 2\hat{k}$, the value of $\mathbf{a} \cdot \mathbf{b}$ is:



(A) 8

(B) -4

(C) 4

(D) -8

Q16. If $\mathbf{a} = \hat{i} + 2\hat{j} + 3\hat{k}$ and $\mathbf{b} = 2\hat{i} + 4\hat{j} + 6\hat{k}$, then $\mathbf{a} \times \mathbf{b}$ equals:

(A) $\mathbf{0}$ (the zero vector)

(B) 14

(C) $\hat{i} + \hat{j} + \hat{k}$

(D) $2\hat{i} + 4\hat{j} + 6\hat{k}$

Q17. The number of ways to select a team of 2 players from a group of 10 players is:

(A) 90

(B) 45

(C) 20

(D) 100

Q18. The arithmetic mean of the numbers 7 and 15 is:

(A) $\sqrt{105}$

(B) 22

(C) 8

(D) 11

Q19. The reflection of the point $(2, 3, -1)$ in the xy-plane is:

(A) $(-2,\ 3,\ -1)$

(B) $(2,\ -3,\ -1)$

(C) $(2,\ 3,\ 1)$

(D) $(-2,\ -3,\ -1)$

Q20. The general solution of the differential equation $\frac{dy}{dx} = \cos x$ is:

(A) $y = \sin x + C$

(B) $y = \cos x + C$

(C) $y = -\cos x + C$

(D) $y = -\sin x + C$

Detailed Solutions

Q1.

Solution

Concept – Power rule for integration:

$$\int x^n\,dx = \frac{x^{n+1}}{n+1} + C \quad (n \neq -1)$$

Step 1 – Rewrite the integrand:

$$\frac{1}{x^2} = x^{-2}$$

Step 2 – Integrate using the power rule ($n = -2$):

$$\int x^{-2}\,dx = \frac{x^{-1}}{-1} = -\frac{1}{x}$$

Step 3 – Apply the limits from 1 to 2:

$$\int_1^2 x^{-2}\,dx = \left[-\frac{1}{x}\right]_1^2$$

Step 4 – Substitute the limits:

$$= \left(-\frac{1}{2}\right) - \left(-\frac{1}{1}\right) = -\frac{1}{2} + 1 = \frac{1}{2}$$

Why other options are wrong:

- (A) 1: using the antiderivative value at $x = 1$ only.
- (C) $\frac{3}{2}$: adding the limit values instead of subtracting.
- (D) $-\frac{1}{2}$: dropping the negative sign in the antiderivative, giving $\frac{1}{2} - 1$.

Answer: (B) ← Go Back to Q1

Q2.

Solution

Concept – Term-by-term definite integration:

$$\int_a^b (x^2+1)\,dx = \left[\frac{x^3}{3}+x\right]_a^b$$

Step 1 – Find the antiderivative:

$$F(x) = \frac{x^3}{3}+x$$

Step 2 – Evaluate at the upper limit $x=1$:

$$F(1) = \frac{1}{3}+1 = \frac{4}{3}$$

Step 3 – Evaluate at the lower limit $x=-1$:

$$F(-1) = \frac{-1}{3}-1 = -\frac{4}{3}$$

Step 4 – Subtract:

$$\int_{-1}^{1} (x^2+1)\,dx = \frac{4}{3}-\left(-\frac{4}{3}\right) = \frac{8}{3}$$

Why other options are wrong:

- (A) $\frac{2}{3}$: integrating only x^2 over $[0,1]$.
- (B) 2: integrating only the constant 1 over $[-1,1]$.
- (D) $\frac{4}{3}$: using only $F(1)$ and ignoring the lower limit.

Answer: (C) ← Go Back to Q2

Q3.

Solution

Concept – Area under a curve above the x-axis:

$$A = \int_a^b f(x)\,dx$$

Step 1 – Set up the integral for $f(x)=e^x$ on $[0,1]$:

$$A = \int_0^1 e^x\,dx$$

Step 2 – Use $\int e^x\,dx = e^x$:

$$A = \Big[e^x\Big]_0^1$$

Step 3 – Substitute the limits:

$$A = e^1 - e^0 = e - 1$$

Why other options are wrong:

- (B) e: evaluating e^x at $x = 1$ only, ignoring the lower limit.
- (C) $e + 1$: adding e^0 instead of subtracting it.
- (D) $1 - e$: reversing the order of subtraction.

Answer: (A) ← Go Back to Q3

Q4.

Solution

Concept – Midpoint formula:

$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$$

Step 1 – Identify the coordinates:

$$(x_1, y_1) = (-2, 5), \quad (x_2, y_2) = (4, -1)$$

Step 2 – Compute the x-coordinate of the midpoint:

$$\frac{-2 + 4}{2} = \frac{2}{2} = 1$$

Step 3 – Compute the y-coordinate of the midpoint:

$$\frac{5 + (-1)}{2} = \frac{4}{2} = 2$$

Step 4 – State the midpoint:

$$M = (1,\ 2)$$

Why other options are wrong:

- (A) $(3, 2)$: using a difference instead of a sum in the x-coordinate.
- (B) $(2, 1)$: swapping the x- and y-values.

- (C) $(1, 3)$: averaging the y-values incorrectly as $\frac{5+1}{2}$.

Answer: (D) ← Go Back to Q4

Q5.

Solution

Concept – Eccentricity of hyperbola $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$:

$$c^2 = a^2 + b^2, \qquad e = \frac{c}{a}$$

Step 1 – Read off a^2 and b^2:

$$a^2 = 16, \quad b^2 = 9$$

Step 2 – Compute c^2 (note the $+$ sign for a hyperbola):

$$c^2 = 16 + 9 = 25$$

Step 3 – Compute c and a:

$$c = 5, \quad a = 4$$

Step 4 – Compute the eccentricity:

$$e = \frac{c}{a} = \frac{5}{4}$$

Why other options are wrong:

- (B) $\frac{4}{5}$: inverting the ratio c/a.
- (C) $\frac{3}{4}$: using b/a instead of c/a.
- (D) $\frac{5}{3}$: using $c^2 = a^2 - b^2 = 7$ as if it were an ellipse, or mismatching a and b.

Answer: (A) ← Go Back to Q5

Q6.

Solution

Concept – Standard parabola $x^2 = 4ay$:
This opens upward, has vertex at the origin, and its directrix is the line $y = -a$.

Step 1 – Match $x^2 = 8y$ to $x^2 = 4ay$:

$$4a = 8 \;\Rightarrow\; a = 2$$

Step 2 – Write the directrix $y = -a$:

$$y = -2$$

Why other options are wrong:

- (A) $y = 2$: this is the focus level, not the directrix (which lies on the opposite side).
- (B) $x = -2$: a vertical line, which would be the directrix of a sideways parabola $y^2 = 8x$.
- (C) $x = 2$: also a vertical line, not applicable to $x^2 = 8y$.

Answer: (D) ← Go Back to Q6

Q7.

Solution

Concept – 2×2 determinant:

$$\det\begin{pmatrix} a & b \\ c & d \end{pmatrix} = ad - bc$$

Step 1 – Identify the elements:

$$a = 4,\; b = 2,\; c = 1,\; d = 3$$

Step 2 – Apply the formula:

$$\det(A) = (4)(3) - (2)(1)$$

Step 3 – Compute:

$$= 12 - 2 = 10$$

Why other options are wrong:

- (A) 14: adding the two products $12 + 2$ instead of subtracting.
- (C) -10: reversing the subtraction order to $bc - ad$.
- (D) 12: taking only the main-diagonal product ad.

Answer: (B) ← Go Back to Q7

Q8.

Solution

Concept – Matrix addition:
Add the matrices entry by entry (same position).

Step 1 – Add the first-row entries:

$$1 + 2 = 3, \qquad 2 + 1 = 3$$

Step 2 – Add the second-row entries:

$$0 + 1 = 1, \qquad 1 + 0 = 1$$

Step 3 – Assemble the result:

$$A + B = \begin{pmatrix} 3 & 3 \\ 1 & 1 \end{pmatrix}$$

Why other options are wrong:

- (A) $\begin{pmatrix} 3 & 2 \\ 1 & 1 \end{pmatrix}$: the $(1, 2)$ entry $2 + 1 = 3$ is mis-added as 2.
- (B) $\begin{pmatrix} 2 & 3 \\ 1 & 1 \end{pmatrix}$: the $(1, 1)$ entry $1 + 2 = 3$ is mis-added as 2.
- (D) $\begin{pmatrix} 3 & 3 \\ 0 & 1 \end{pmatrix}$: the second row of B was not added.

Answer: (C) ← Go Back to Q8

Q9.

Solution

Concept – Standard exponential limit:

$$\lim_{x\to 0}\frac{e^x-1}{x}=1$$

Step 1 – Factor out the constant 2 from the denominator:

$$\lim_{x\to 0}\frac{e^x-1}{2x}=\frac{1}{2}\lim_{x\to 0}\frac{e^x-1}{x}$$

Step 2 – Apply the standard limit:

$$\lim_{x\to 0}\frac{e^x-1}{x}=1$$

Step 3 – Combine:

$$=\frac{1}{2}\times 1=\frac{1}{2}$$

Why other options are wrong:

- (A) 1: ignoring the factor of 2 in the denominator.
- (B) 2: placing the 2 in the numerator instead of the denominator.
- (C) 0: incorrectly substituting $x=0$ directly, giving the indeterminate $\frac{0}{0}$.

Answer: (D) ← Go Back to Q9

Q10.

Solution

Concept – Chain rule:

$$\frac{d}{dx}\left[u^{1/2}\right]=\frac{1}{2}u^{-1/2}\cdot\frac{du}{dx}$$

Step 1 – Let $u=x^2+1$, so $y=u^{1/2}$:

$$\frac{du}{dx}=2x$$

Step 2 – Differentiate the outer function:

$$\frac{dy}{du}=\frac{1}{2}u^{-1/2}=\frac{1}{2\sqrt{x^2+1}}$$

Step 3 – Multiply by $\frac{du}{dx}$:

$$\frac{dy}{dx} = \frac{1}{2\sqrt{x^2+1}} \cdot 2x$$

Step 4 – Simplify:

$$\frac{dy}{dx} = \frac{x}{\sqrt{x^2+1}}$$

Why other options are wrong:

- (A) $\frac{1}{2\sqrt{x^2+1}}$: forgetting to multiply by the inner derivative $2x$.
- (B) $\frac{2x}{\sqrt{x^2+1}}$: dropping the factor $\frac{1}{2}$ from the power rule.
- (D) $\frac{1}{\sqrt{x^2+1}}$: treating the inner derivative as 1 instead of $2x$.

Answer: (C) ← Go Back to Q10

Q11.

Solution

Concept – Standard trigonometric values:

$$\sin 30^\circ = \frac{1}{2}, \qquad \cos 60^\circ = \frac{1}{2}$$

Step 1 – Square each value:

$$\sin^2 30^\circ = \left(\frac{1}{2}\right)^2 = \frac{1}{4}$$

$$\cos^2 60^\circ = \left(\frac{1}{2}\right)^2 = \frac{1}{4}$$

Step 2 – Add the two results:

$$\sin^2 30^\circ + \cos^2 60^\circ = \frac{1}{4} + \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$$

Why other options are wrong:

- (C) 1: assuming the Pythagorean identity $\sin^2\theta + \cos^2\theta = 1$, but here the angles differ (30° vs 60°).
- (B) $\frac{3}{4}$: using $\sin 30^\circ = \frac{1}{2}$ but $\cos 60^\circ = \frac{\sqrt{3}}{2}$ (a value mix-up).
- (D) $\frac{1}{4}$: adding only one of the two squared terms.

Answer: (A) ← Go Back to Q11

Q12.

Solution

Concept – Area from two sides and the included angle:

$$\text{Area} = \frac{1}{2}\, b\, c\, \sin A$$

Step 1 – Identify the two sides and the included angle:

$$b = 6, \quad c = 8, \quad A = 30^\circ$$

Step 2 – Recall $\sin 30^\circ$**:**

$$\sin 30^\circ = \frac{1}{2}$$

Step 3 – Substitute into the formula:

$$\text{Area} = \frac{1}{2} \times 6 \times 8 \times \frac{1}{2}$$

Step 4 – Compute step by step:

$$= \frac{1}{2} \times 48 \times \frac{1}{2} = 24 \times \frac{1}{2} = 12$$

Why other options are wrong:

- (A) 24: forgetting the factor $\frac{1}{2}$ in the area formula.
- (D) 48: computing only $b\,c$ and dropping both the $\frac{1}{2}$ and $\sin A$.
- (C) $12\sqrt{3}$: using $\sin 60^\circ = \frac{\sqrt{3}}{2}$ instead of $\sin 30^\circ$.

Answer: (B) ← Go Back to Q12

Q13.

Solution

Concept – Classical probability:

$$P = \frac{\text{favourable outcomes}}{\text{total outcomes}}$$

Step 1 – Count the face cards:
Each of the 4 suits has 3 face cards (Jack, Queen, King), so

$$4 \times 3 = 12 \text{ face cards}$$

Step 2 – Total cards:

$$52$$

Step 3 – Compute the probability:

$$P = \frac{12}{52}$$

Step 4 – Simplify:

$$\frac{12}{52} = \frac{3}{13}$$

Why other options are wrong:

- (A) $\frac{1}{13}$: counting only one face value (e.g. only Kings, $4/52$).
- (B) $\frac{4}{13}$: counting 16 cards by also including the Aces.
- (D) $\frac{1}{4}$: this is the probability of a particular suit, not a face card.

Answer: (C) ← Go Back to Q13

Q14.

Solution

Concept – Probability using combinations:

$$P = \frac{\text{favourable}}{\text{total}} = \frac{\binom{4}{2}}{\binom{9}{2}}$$

Step 1 – Total balls:

$$4 + 5 = 9$$

Step 2 – Total ways to choose 2 from 9:

$$\binom{9}{2} = \frac{9 \times 8}{2} = 36$$

Step 3 – Ways to choose 2 red from 4:

$$\binom{4}{2} = \frac{4 \times 3}{2} = 6$$

Step 4 – Compute and simplify the probability:

$$P = \frac{6}{36} = \frac{1}{6}$$

Why other options are wrong:

- (A) $\frac{2}{9}$: equals $\frac{8}{36}$, an incorrect favourable count.
- (C) $\frac{5}{18}$: equals $\frac{10}{36} = \binom{5}{2}/\binom{9}{2}$, the probability that both are blue.
- (D) $\frac{4}{9}$: using $4/9$ as if only one draw of a red ball were considered.

Answer: (B) ← Go Back to Q14

Q15.

Solution

Concept – Dot product:

$$\mathbf{a} \cdot \mathbf{b} = a_1b_1 + a_2b_2 + a_3b_3$$

Step 1 – Write the components:

$$\mathbf{a} = (2,\ -1,\ 3), \quad \mathbf{b} = (1,\ 4,\ -2)$$

Step 2 – Multiply the matching components:

$$2 \times 1 = 2$$

$$(-1) \times 4 = -4$$

$$3 \times (-2) = -6$$

Step 3 – Add the products:

$$\mathbf{a} \cdot \mathbf{b} = 2 + (-4) + (-6) = -8$$

Why other options are wrong:

- (A) 8: taking all three products as positive: $2 + 4 + 6 = 12$, or a sign slip to $+8$.
- (B) -4: missing the last term $3 \times (-2) = -6$.
- (C) 4: a sign error such as $2 + 4 - 2 = 4$.

Answer: (D) ← Go Back to Q15

Q16.

Solution

Concept – Cross product of parallel vectors:
If $\mathbf{b} = k\mathbf{a}$ (the vectors are parallel), then $\mathbf{a} \times \mathbf{b} = \mathbf{0}$, because the angle between them is 0° and $\sin 0^\circ = 0$.

Step 1 – Check whether b is a multiple of a:

$$\mathbf{b} = (2, 4, 6) = 2(1, 2, 3) = 2\mathbf{a}$$

So $\mathbf{b} = 2\mathbf{a}$; the vectors are parallel.

Step 2 – Compute the cross product by the determinant:

$$\mathbf{a} \times \mathbf{b} = \begin{vmatrix} \hat{i} & \hat{j} & \hat{k} \\ 1 & 2 & 3 \\ 2 & 4 & 6 \end{vmatrix}$$

Step 3 – Expand along the first row:

$$\hat{i}(2 \cdot 6 - 3 \cdot 4) - \hat{j}(1 \cdot 6 - 3 \cdot 2) + \hat{k}(1 \cdot 4 - 2 \cdot 2)$$

Step 4 – Evaluate each component:

$$\hat{i}(12 - 12) - \hat{j}(6 - 6) + \hat{k}(4 - 4) = 0\hat{i} - 0\hat{j} + 0\hat{k} = \mathbf{0}$$

Why other options are wrong:

- (D) $2\hat{i} + 4\hat{j} + 6\hat{k}$: this is just $\mathbf{b}$, not the cross product.
- (B) 14: this is the dot product $\mathbf{a} \cdot \mathbf{b} = 2 + 8 + 18 \neq 14$ written as a scalar; in any case a cross product is a vector.
- (C) $\hat{i} + \hat{j} + \hat{k}$: an arbitrary non-zero vector with no basis here.

Answer: (A) ← Go Back to Q16

Q17.

Solution

Concept – Combination (order does not matter):

$$\binom{n}{r} = \frac{n!}{r!\,(n-r)!}$$

Step 1 – Identify $n = 10$, $r = 2$.

Step 2 – Expand (cancel $8!$):

$$\binom{10}{2} = \frac{10 \times 9}{2 \times 1}$$

Step 3 – Compute:

$$= \frac{90}{2} = 45$$

Why other options are wrong:

- (A) 90: computing $P(10,2) = 10 \times 9$ (permutations, where order matters).
- (C) 20: an incorrect partial calculation.
- (D) 100: using 10×10 instead of 10×9.

Answer: (B) ← Go Back to Q17

Q18.

Solution

Concept – Arithmetic mean of two numbers:

$$\text{AM} = \frac{a+b}{2}$$

Step 1 – Identify the numbers:

$$a = 7, \quad b = 15$$

Step 2 – Add them:

$$7 + 15 = 22$$

Step 3 – Divide by 2:

$$\text{AM} = \frac{22}{2} = 11$$

Why other options are wrong:

- (A) $\sqrt{105}$: this is the geometric mean $\sqrt{7 \times 15}$, not the arithmetic mean.
- (B) 22: stopping at the sum without dividing by 2.
- (C) 8: taking half of the difference $15 - 7$ instead of the sum.

Answer: (D) ← Go Back to Q18

Q19.

Solution

Concept – Reflection in the xy-plane:
The xy-plane is the set $z = 0$. Reflecting a point in this plane keeps x and y unchanged and reverses the sign of z:

$$(x, y, z) \longmapsto (x, y, -z)$$

Step 1 – Identify the coordinates of the point:

$$(x, y, z) = (2, 3, -1)$$

Step 2 – Keep x and y, negate z:

$$x = 2, \quad y = 3, \quad -z = -(-1) = 1$$

Step 3 – State the reflected point:

$$(2,\ 3,\ 1)$$

Why other options are wrong:

- (A) $(-2, 3, -1)$: this is reflection in the yz-plane (negating x).
- (B) $(2, -3, -1)$: this is reflection in the xz-plane (negating y).
- (D) $(-2, -3, -1)$: this negates x and y but not z, which is not a plane reflection.

Answer: (C) ← Go Back to Q19

Q20.

Solution

Concept – Direct integration:
When $\frac{dy}{dx} = f(x)$, integrate both sides with respect to x.

Step 1 – Separate and integrate:

$$dy = \cos x \, dx$$

$$\int dy = \int \cos x \, dx$$

Step 2 – Use $\int \cos x\, dx = \sin x$:

$$y = \sin x + C$$

Step 3 – Verify by differentiating:

$$\frac{d}{dx}(\sin x + C) = \cos x \checkmark$$

Why other options are wrong:

- (D) $y = -\sin x + C$: sign error, this differentiates to $-\cos x$.
- (B) $y = \cos x + C$: differentiates to $-\sin x$, not $\cos x$.
- (C) $y = -\cos x + C$: this is the solution of $\frac{dy}{dx} = \sin x$.

Answer: (A) ← Go Back to Q20

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	B	2	C	3	A	4	D	5	A
6	D	7	B	8	C	9	D	10	C
11	A	12	B	13	C	14	B	15	D
16	A	17	B	18	D	19	C	20	A