Choose the correct answer :

Q : By drawing the straight line that passes through the points $(5, 7)$ and $(8, 2)$ on a grid, determine which of the following is the equation of this line.

| A | $3y = 5x - 46$ |

| B | $3y = 5x + 46$ |

| C | $3y = 5x + 9$ |

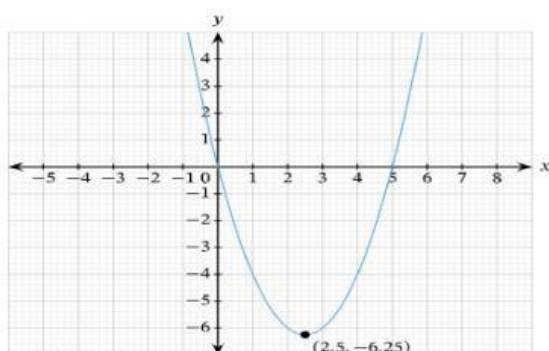| D | $3y = -5x - 9$ |

| E | $3y = -5x + 46$ |

Q ?: Does the line representing the function $f(x) = 3 - x$ have a positive or a negative slope?

| A | Negative slope |

| B | Positive slope |

Q : Find the coordinates of the point of intersection of the linear equation $3y - 5x + 8 = 0$ with the y- and x-axes.

| A | $\left(0, -\frac{3}{8}\right)$ and $\left(\frac{8}{5}, 0\right)$ |

| B | $\left(-\frac{8}{3}, 0\right)$ and $\left(\frac{8}{5}, 0\right)$ |

| C | $\left(0, \frac{3}{8}\right)$ and $\left(-\frac{8}{5}, 0\right)$ |

| D | $\left(0, -\frac{8}{3}\right)$ and $\left(\frac{8}{5}, 0\right)$ |

| E | $\left(0, \frac{8}{3}\right)$ and $\left(-\frac{8}{5}, 0\right)$ |

Q : Write the quadratic equation represented by the graph shown. Give your answer in factored form.

(2.5, −6.25)

A	$y = x(x - 5)$
B	$y = -x(x + 5)$
C	$y = (x - 9)^2$
D	$y = x(x + 5)$
E	$y = -x(x - 5)$

Q : Determine $\lim\limits_{x \to \infty} \dfrac{(5x^2 + 3)^2}{(3x - 2)^2(x^2 - 2x)}$, if it exists.

A | $\dfrac{25}{9}$

B | $\dfrac{5}{9}$

C | 0

D | The limit does not exist.

E | $\dfrac{9}{4}$

Q : Find $\lim\limits_{x \to \infty} \dfrac{8x^4 - 4x^3 - 2x^2 + 9x - 6}{-5x^4 - 6x^3 - 2x^2 - 7x + 3}$.

A | ∞

B | $-\infty$

C | $\dfrac{8}{5}$

D | $-\dfrac{8}{5}$

Q : If $f(x)$ is a polynomial function of the first degree and $g(x)$ is a polynomial function of the sixth degree, find $\lim\limits_{x \to \infty} \dfrac{g(x)}{4x^4 f(x)}$.

A | A real number $\neq 0$

B | Zero

C | $\pm\infty$

D | It has no limit.

Q : Find $\lim\limits_{x \to \infty} \dfrac{-5x^{-4} + 5x^{-3} - x^{-2} + 6x^{-1} + 5}{7x^{-4} + 8x^{-3} + x^{-1} - 9}$.

A | ∞

B | $-\dfrac{5}{9}$

C | $\dfrac{5}{9}$

D | $-\infty$