CALCULUS
Problem Bank
Functions and expressions
Domain of $\sqrt{x}$ is ??

(a) $x \in \mathbb{R}$

(b) $x \in \mathbb{Q}$

(c) $x \in (0, \infty)$

(d) none of the above

Correct answer: $x \in [0, \infty)$
T or F: $\frac{x^9}{x^4} = x^5$

(a) True
(b) False
(a) True
(b) False

T or F: $x^0 = 1$
Which is a linear combination of $1, x, x^2$?

(a) $\sin x$

(b) $2 + 8x + 7x^2$

(c) $e^x$

(d) **none** of the above
Which is a linear combination of $1, x, x^2$?

(a) $\sin x$

(b) $2 - x$

(c) $e^x$

(d) none of the above
Which is a linear combination of \( \sin x \) and \( \cos x \)?

(a) \( \sin x \)

(b) \( 2 + 8x + 7x^2 \)

(c) \( e^x \)

(d) none of the above
Which is a linear combination of \( \sin x \) and \( \cos x \)?

(a) 0

(b) \( 2 + 8x + 7x^2 \)

(c) \( e^x \)

(d) None of the above