

Finding Limit Algebraically

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the indicated limit.

1) $\lim_{x \rightarrow 1} (x^2 + 5x - 2)$ 1) _____
A) 8 B) -2 C) 4 D) Does not exist

2) $\lim_{x \rightarrow 8} \frac{x^2 - 64}{x - 8}$ 2) _____
A) 8 B) 1 C) 16 D) Does not exist

3) $\lim_{x \rightarrow -2} \frac{x^2 + 11x + 18}{x + 2}$ 3) _____
A) 11 B) 7 C) 44 D) Does not exist

4) $\lim_{x \rightarrow 2} \frac{x^2 + 2x - 8}{x^2 - 4}$ 4) _____
A) 0 B) $-\frac{1}{2}$ C) $\frac{3}{2}$ D) Does not exist

5) $\lim_{x \rightarrow 5} \frac{x^2 - 25}{x^2 - 7x + 10}$ 5) _____
A) $\frac{5}{3}$ B) $\frac{10}{3}$ C) 0 D) Does not exist

Find the limit.

6) $\lim_{x \rightarrow 0} \frac{\sqrt{1+x} - 1}{x}$ 6) _____
A) 0 B) Does not exist C) $\frac{1}{4}$ D) $\frac{1}{2}$

Find the limit or state that it does not exist.

7) $\lim_{x \rightarrow 0} \frac{\sqrt{x+5} - \sqrt{5}}{x}$ 7) _____
A) $\frac{\sqrt{5}}{5}$ B) $\frac{1}{2\sqrt{5}}$ C) $\sqrt{5}$ D) Does not exist

Find the indicated limit.

8) $\lim_{h \rightarrow 0} \frac{(7+h)^2 - 49}{h}$ 8) _____
A) 49 B) 14 C) 7 D) Does not exist

Answer Key

Testname: FINDING LIMIT ALGEBRAICALLY

- 1) C
- 2) C
- 3) B
- 4) C
- 5) B
- 6) D
- 7) B
- 8) B