

Limits 1: Plug & Factor

Numberbender | WORKSHEET



Name: _____ Date: _____ Score: _____

Evaluate each limit by plugging in or factoring. Show all work.

Limits Worksheet #1

1. $\lim_{x \rightarrow 0} 2x + 7$

2. $\lim_{x \rightarrow 3} x^2 + 3x - 8$

3. $\lim_{x \rightarrow 5} \frac{x^2 - 25}{x - 5}$

4. $\lim_{x \rightarrow 2} \frac{x^2 - 5x + 6}{x - 2}$

5. $\lim_{x \rightarrow 2} \frac{x - 2}{x^2 - 4}$

6. $\lim_{x \rightarrow 1} \frac{x^3 - 8}{x - 2}$

7. $\lim_{x \rightarrow 9} \frac{\sqrt{x} - 3}{x - 9}$

8. $\lim_{x \rightarrow 3} \frac{x^2 - 9}{x^3 - 27}$

9. $\lim_{x \rightarrow 1} \frac{\sqrt[3]{7+x}}{\sqrt{8+x}}$

10. $\lim_{x \rightarrow 2} \sqrt{2x^2 + 1}$

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Answer key — for instructor use only.

Answers:

1) 7	2) 10	3) 10	4) -1	5) $\frac{1}{4}$
6) 3	7) $\frac{1}{6}$	8) $\frac{2}{9}$	9) $\frac{2}{3}$	10) 3