Task card 1 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 1} \frac{x^2 - 3x + 2}{x - 1}$$

Task card 2 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{e^{6x} - 1}{x}$$

Task card 3 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{\sin 7x}{x}$$

Task card 4 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 2} \frac{x^2 + 3x - 10}{x - 2}$$

Task card 5 L'Hôpital's Rule for Limits

Find the limit:

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

Task card 6 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{\sin 6x}{x}$$

Task card 7 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{e^{4x} - 1}{x}$$

Task card 8 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 3} \frac{x^2 - 8x + 15}{x - 3}$$

Task card 9 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 3} \frac{x^2 - 7x + 12}{x - 3}$$

Task card 10 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{e^{3x} - 1}{x}$$

Task card 11 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 2} \frac{x^2 - 7x + 10}{x - 2}$$

Task card 12 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{\sin 2x}{x}$$

Task card 13 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{\sin 4x}{x}$$

Task card 14 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to -1} \frac{x^2 - 1}{x^2 - 2x - 3}$$

Task card 15 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{e^{4x} - 1}{5x}$$

Task card 16 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 1} \frac{\ln x}{x^3 - 1}$$

Task card 17 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to \infty} \frac{x^2 - 3x + 6}{3x^2 - 6x - 3}$$

Task card 18 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to -2} \frac{x^2 - 4}{2x^2 - x - 10}$$

Task card 19 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{\sin 5x}{x}$$

Task card 20 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{e^{5x} - 1}{3x}$$

Task card 21 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 4} \frac{x^2 - 5x + 4}{x - 4}$$

Task card 22 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 0} \frac{e^{5x} - 1}{x}$$

Task card 23 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 2} \frac{x^2 + 2x - 8}{x - 2}$$

Task card 24 L'Hôpital's Rule for Limits

Find the limit:

$$\lim_{x \to 3} \frac{x^2 - 9x + 18}{x - 3}$$

L'Hôpital's Rule for Limits Task Cards

Recording sheet · Grade 12 · Each limit gives 0/0 or ∞/∞ when you substitute. Use L'Hôpital's Rule (differentiate the top and the bottom separately) and give the exact value: a whole number or a fraction in simplest form.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

L'Hôpital's Rule for Limits Task Cards: Answer Key

Grade 12 · Easy

The answers online

1. -1	**2.** 6	**3.** 7
4. 7	**5.** 2	**6.** 6
7. 4	**8.** -2	**9.** -1
10. 3	**11.** -3	**12.** 2
13. 4	**14.** $\frac{1}{2}$	**15.** $\frac{4}{5}$
16. $\frac{1}{3}$	**17.** $\frac{1}{3}$	**18.** $\frac{4}{9}$
19. 5	**20.** $\frac{5}{3}$	**21.** 3
22. 5	**23.** 6	**24.** -3