

No calculators will be allowed and no partial credit will be given.

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1. Evaluate the limit  $\lim_{x \rightarrow 1} \frac{x^2 + 2x - 1}{x - 2}$ . Express your answer in simplified form.
2. Evaluate the limit  $\lim_{x \rightarrow 1} \frac{3x - 2}{2 - 3x}$ . Express your answer in simplified form.
3. Evaluate the limit  $\lim_{x \rightarrow 3} \frac{x^2 - 5x + 6}{x - 3}$ . Express your answer in simplified form.
4. Evaluate the limit  $\lim_{h \rightarrow 0} \frac{(h + 6)^2 - 36}{h}$ . Express your answer in simplified form.
5. Find the value of  $\lim_{x \rightarrow 4} \frac{x^2 - 16}{7x - 28}$ . Express your answer in simplified form.
6. Find the value of  $\lim_{x \rightarrow 4^+} (\ln(x^2 - 16) - \ln(3x - 12))$ . Express your answer in simplified form.
7. Find the value of  $\lim_{x \rightarrow 4} \left( e^{\frac{1}{(7x-28)}} \right)^{(x^2-16)}$ . Express your answer in simplified form.
8. Evaluate the limit  $\lim_{x \rightarrow 36} \frac{36 - x}{6 - \sqrt{x}}$ . Express your answer in simplified form.

1.  $-2$

2.  $-1$

3.  $1$

4.  $12$

5.  $\frac{8}{7}$

6.  $\ln(8/3)$

7.  $e^{\frac{8}{7}}$

8.  $12$