



1 Simplifica estas fracciones algebraicas:

$$a) \frac{x+3}{5x+15} = \frac{x+3}{5(\boxed{x}+\boxed{3})} = \frac{\boxed{1}}{\boxed{5}}$$

$$b) \frac{x^2-6x+9}{3x-9} = \frac{(\boxed{x}-\boxed{3})^2}{3(\boxed{x}-\boxed{3})} = \frac{\boxed{x}-\boxed{3}}{\boxed{3}}$$

$$c) \frac{x^2+2x}{x^2+4x+4} = \frac{x(\boxed{x}+\boxed{2})}{(\boxed{x}+\boxed{2})^2} = \frac{\boxed{x}}{\boxed{x}+\boxed{2}}$$

$$d) \frac{2x^2-8}{2x^2-8x+8} = \frac{\boxed{2}(x^2-4)}{\boxed{2}(x^2-4x+4)} = \frac{(\boxed{x}+\boxed{2}) \cdot (\boxed{x}-\boxed{2})}{(\boxed{x}-\boxed{2})^2} = \frac{\boxed{x}+\boxed{2}}{\boxed{x}-\boxed{2}}$$

$$e) \frac{x+2}{7x+14} = \frac{(x+2)}{\boxed{7}(\boxed{x}+\boxed{2})} = \frac{\boxed{1}}{\boxed{7}}$$

$$f) \frac{x^2-3x}{3x-9} = \frac{\boxed{x}(\boxed{x}-\boxed{3})}{\boxed{3}(\boxed{x}-\boxed{3})} = \frac{\boxed{x}}{\boxed{3}}$$

$$g) \frac{x+1}{3x^2+3x} = \frac{(x+1)}{\boxed{3x}(\boxed{x}+\boxed{1})} = \frac{\boxed{1}}{\boxed{3x}}$$

$$h) \frac{(x-2)^2}{x^2-2x} = \frac{(x-2)^2}{\boxed{x}(\boxed{x}-\boxed{2})} = \frac{\boxed{x}-\boxed{2}}{\boxed{x}}$$

$$i) \frac{x^4-3x^2}{2x^3+x^2} = \frac{\boxed{x^2}(\boxed{x^2}-\boxed{3})}{\boxed{x^2}(\boxed{2x}+\boxed{1})} = \frac{\boxed{x^2}-\boxed{3}}{\boxed{2x}+\boxed{1}}$$

$$j) \frac{x^2+4x+4}{x^2+2x} = \frac{(\boxed{x}+\boxed{2})^2}{\boxed{x}(\boxed{x}+\boxed{2})} = \frac{\boxed{x}+\boxed{2}}{\boxed{x}}$$

$$k) \frac{x^2-x}{x^2-2x+1} = \frac{\boxed{x}(\boxed{x}-\boxed{1})}{(\boxed{x}-\boxed{1})^2} = \frac{\boxed{x}}{\boxed{x}-\boxed{1}}$$