

Calculus 12
1-3 Questions

1. Rationalize the numerator.

a) $\frac{\sqrt{x} - 3}{x - 9}$

c) $\frac{x\sqrt{x} - 8}{x - 4}$

e) $\sqrt{x^2 + 3x + 4} - x$

b) $\frac{\frac{1}{\sqrt{x}} - 1}{x - 1}$

d) $\frac{\sqrt{2+h} + \sqrt{2-h}}{h}$

f) $\sqrt{x^2 + x} - \sqrt{x^2 - x}$

2. Rationalize the denominator.

a) $\frac{1}{\sqrt{x+1} - 1}$

c) $\frac{x}{\sqrt{x^2 + 1} + x}$

b) $\frac{4}{\sqrt{x+2} + \sqrt{x}}$

d) $\frac{x^2}{\sqrt{x+1} - \sqrt{x-1}}$