

## Review Unit 4 Mod 8.1 &amp; 9.1-9.2

Simplify each expression.

1)  $\frac{2n-10}{5} \div \frac{2n-10}{n^2-25}$

2)  $\frac{x^2-1}{x^2+4x-5} \div \frac{2x^2+2x}{3x+15}$

3)  $\frac{5x^2+15x}{x^2+7x+12} \cdot \frac{x^2+8x+16}{x+4}$

4)  $\frac{5n^2-25n}{-n^2+8n-16} \cdot \frac{n^2-8n+16}{5n^2-25n}$

5)  $\frac{2k}{2k-4} - \frac{4}{3k+2}$

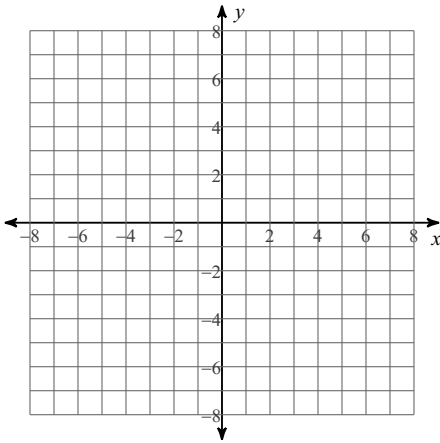
6)  $\frac{2}{2n} - \frac{2}{3n-4}$

7)  $\frac{3v}{6v+2} + \frac{4v}{2v}$

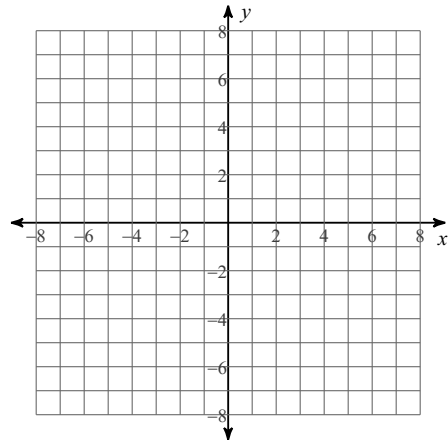
8)  $\frac{2x}{2x-8} + 3x$

Identify the vertical asymptotes, horizontal asymptote, domain, and range of each. Then sketch the graph.

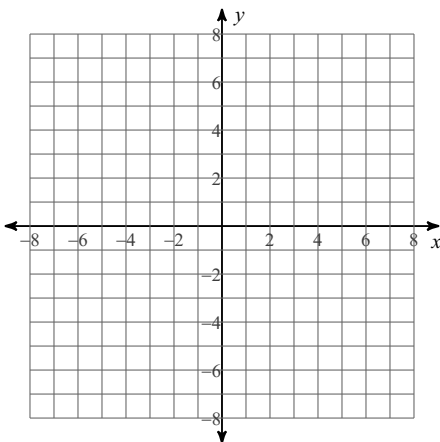
9)  $f(x) = -\frac{4}{x+1} + 2$



10)  $f(x) = \frac{3}{x+2} + 2$



11)  $f(x) = \frac{1}{x+2} - 3$



12)  $f(x) = \frac{2}{x+1} + 3$

