

6.2 Synthetic Division Homework

Name _____



$$\frac{5x^2 - 2x - 3}{x - 1}$$



$$\frac{9x^2 - 34x + 21}{x - 3}$$



$$\frac{-2x^2 - 11x - 5}{x + 5}$$



$$\frac{2x^2 + 7x - 5}{x + 4}$$



$$\frac{x^2 - 9}{x - 3}$$



$$\frac{-9x^2 - 72x}{x + 8}$$



$$\frac{x^3 - 4x^2 - 5x - 42}{x - 6}$$



$$\frac{3x^3 - 4x^2 - 3x + 4}{x + 1}$$



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



$$\frac{4x^3 - 16x^2 + x - 4}{x - 4}$$



$$\frac{x^3 - 6x - 4}{x + 2}$$



$$\frac{5x^3 + 24x^2 + 25}{x + 5}$$



$$\frac{4x^3 - 26x - 30}{x - 3}$$

$2x^3 + 1$	$5x^3 + 2x^2 - x$ $\begin{array}{r} +6 \\ x-2 \end{array}$	$3x^2 - 7x + 4$	$x^3 - 4x^2 + 1$ $\begin{array}{r} -2 \\ x+3 \end{array}$	$x + 3$
$2x - 1$ $\begin{array}{r} -1 \\ x+4 \end{array}$	$-2x^2 - 11x + 1$ $\begin{array}{r} -1 \\ x-5 \end{array}$	$4x^2 + 1$	$x^3 + x^2 + x$	$9x - 7$
$-3x^3 + 3x^2 + 4$ $\begin{array}{r} -3 \\ x+1 \end{array}$	$5x + 3$	$-2x^3 + x^2 - 2x$ $\begin{array}{r} -3 \\ x-2 \end{array}$	$x^2 + 2x + 7$	$4x^3 - 2$ $\begin{array}{r} 15 \\ x+3 \end{array}$
$x^2 - 2x - 2$	$-9x$	$4x^2 + 12x + 10$	$x^2 + 1$	$3x^3 - 3x^2 + 1$
$7x^3 + x$	$-x^2 - 4x - 12$ $\begin{array}{r} -5 \\ x-5 \end{array}$	$-2x - 1$	$2x^3 - 8x^2 + 1$ $\begin{array}{r} +3 \\ x+4 \end{array}$	$5x^2 - x + 5$



$$\frac{2x^4 + 16x^3 + x + 8}{x + 8}$$



$$\frac{x^4 - x^3 - 12x^2 + x + 1}{x + 3}$$



$$\frac{x^4 - x}{x - 1}$$



$$\frac{-2x^4 + 5x^3 - 4x^2 + 4x - 3}{x - 2}$$



$$\frac{7x^4 + 42x^3 + x^2 + 6x}{x + 6}$$



$$\frac{-3x^4 + 3x^2 + 4x + 1}{x + 1}$$



$$\frac{3x^4 - 3x^2 + x + 1}{x + 1}$$



$$\frac{-x^3 + x^2 + 8x + 5}{x - 5}$$



$$\frac{-2x^3 - x^2 + 56x - 6}{x - 5}$$



$$\frac{4x^4 + 12x^3 - 2x + 9}{x + 3}$$



$$\frac{2x^4 - 32x^2 + x + 7}{x + 4}$$



$$\frac{5x^4 - 8x^3 - 5x^2 + 2x + 6}{x - 2}$$