6-3 A Asymptotes

Determine the horizontal and vertical asymptotes for each function.
If none exists for the function, just write "none."

1. $y = \frac{x}{x^2 - x - 12}$ H = _____ V = _____

2. $y = \frac{x^3 + 5}{2x - 2}$ H = _____ V = _____

3. $y = \frac{-2}{x - 5}$ H = _____ V = _____

4. $y = \frac{4x - 6}{x - 5}$ H = _____ V = _____

5. $y = \frac{x^2 + 5x + 3}{x^2 - 9}$ H = _____ V = _____

6-3 B Asymptotes

Determine whether a hole exists or what the slant asymptote equation is.

1. $y = \frac{x^2 - x - 2}{x + 2}$ Hole = _____ Slant = _____

2. $y = \frac{x^2 + 2x - 8}{x - 2}$ Hole = _____ Slant = _____

3. $y = \frac{x^2 + 8x + 7}{x + 1}$ Hole = _____ Slant = _____

4. $y = \frac{x^2 + 3x + 2}{x + 2}$ Hole = _____ Slant = _____

5. $y = \frac{x^2 + 10x + 9}{x + 1}$ Hole = _____ Slant = _____