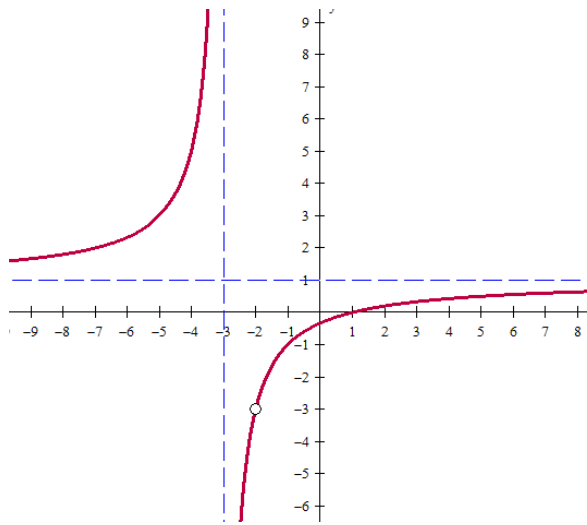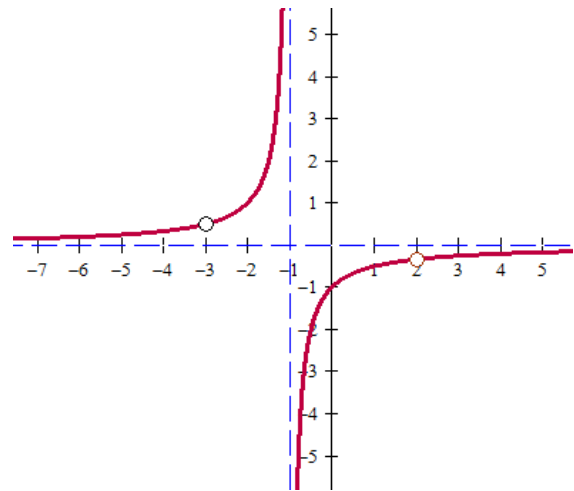# Writing Equations of Rational Functions

Name: _____

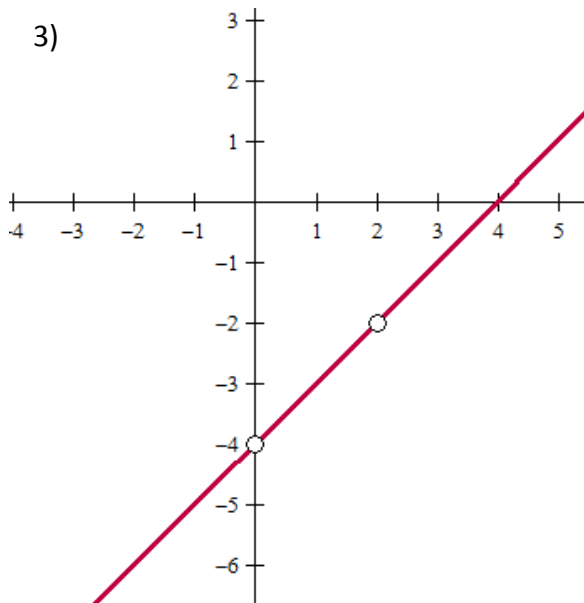Write an equation of a rational function that would match the given graphs or descriptions.

1)
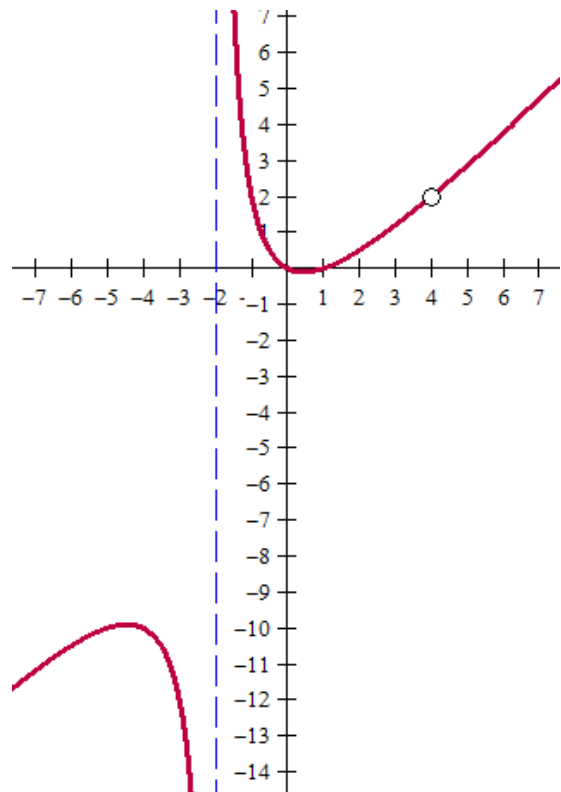

2)
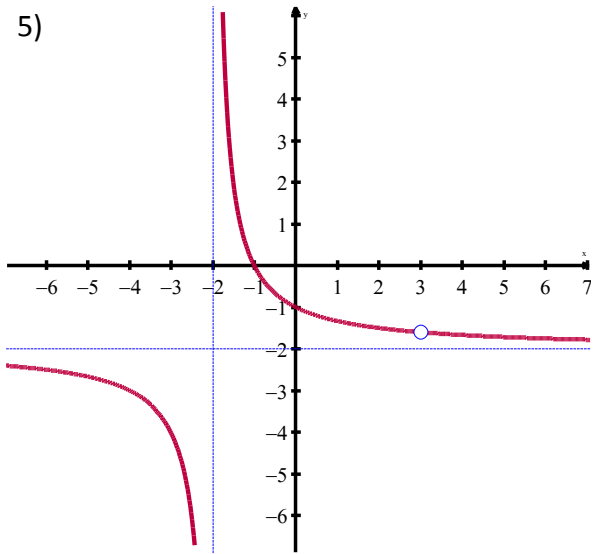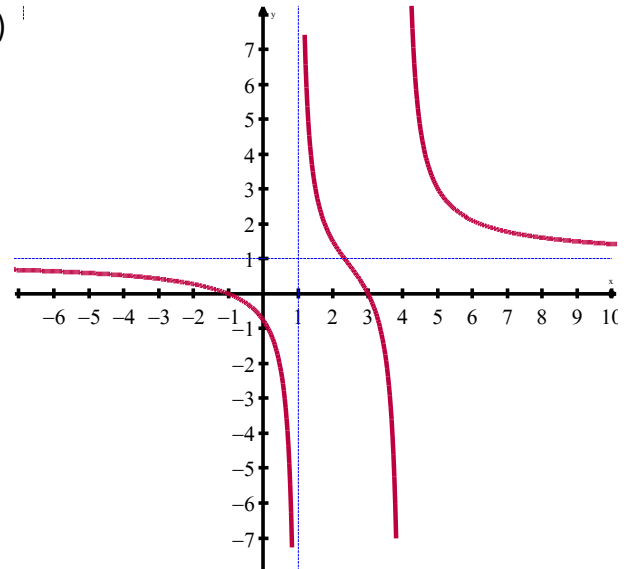

3)

4)

5)

6)

7) This rational function has a hole at x = 3, a vertical asymptote at x = -1, a zero at x = -4, and a horizontal asymptote at y = 4.

8) This rational function has a horizontal asymptote at y = −3/5, has holes at x = -9 and x = 0, zeros at x = 1 and x = 4, and a vertical asymptote at x = 0.

9) This rational function has vertical asymptotes at x = 4 and x = -2, and a zero at x = 3.

10) This rational function has a hole at x = 7 and zeroes at x = 0 and x = -1.