

Name \_\_\_\_\_

---

[06-02-27A-T9]

$$f(x) = \frac{k}{x-h}$$

---

■ A. Discuss the function  $f$  defined by  $f(x) = \frac{1}{x}$ . Give complete answers using correct notation.

■ 1. Domain

■ 2. Range

■ 3. Zeros

■ 4. Asymptotes:

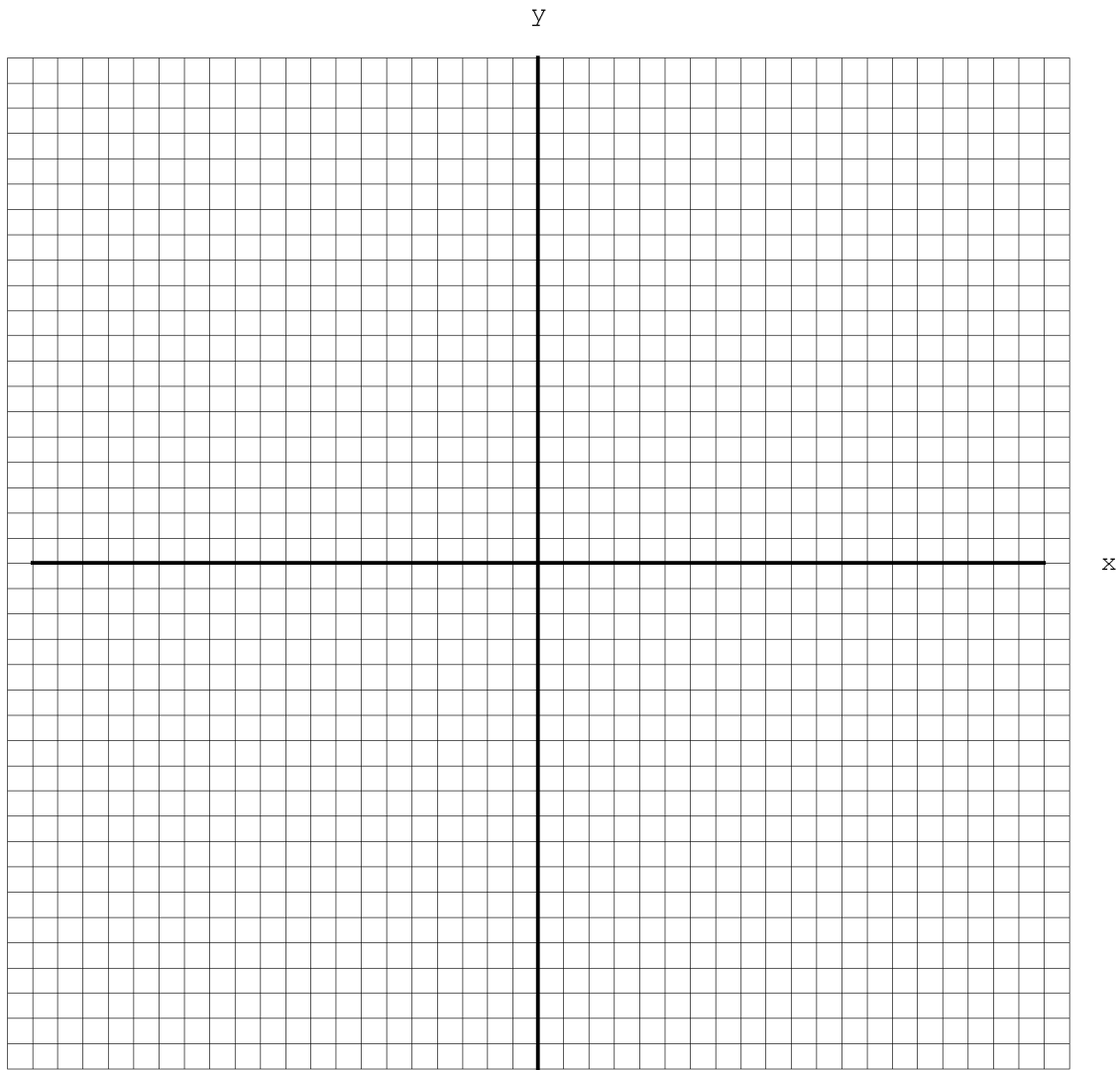
■ 5. Extreme values (maximum, minimum).

■ 6. Monotonicity (increasing, decreasing)

■ 7. Symmetry (state the line of symmetry, if it exists)

■ 8. Rate of change (constant or variable? Support your answer)

■ Graph the function



■ **B. Discuss the function  $f$  defined by  $f(x) = \frac{1}{x-2}$ . Give complete answers using correct notation.**

■ **1. Domain**

■ **2. Range**

■ **3. Zeros**

■ **4. Asymptotes: There are none**

■ **5. Extreme values (maximum, minimum)**

■ **6. Monotonicity (increasing, decreasing)**

■ **7. Symmetry (state the line of symmetry, if it exists)**

■ **8. Rate of change (constant or variable? Support your answer)**

■ Graph the function

