

**Worksheet 2**

/ 15 points

Name:

Section: 5 6

$$f(0) =$$

$$f(1) =$$

$$f(2) =$$

$$f(3) =$$

$$f(4) =$$

$$f(5) =$$

$$\lim_{x \rightarrow 0} f(x) =$$

$$\lim_{x \rightarrow 1} f(x) =$$

$$\lim_{x \rightarrow 2} f(x) =$$

$$\lim_{x \rightarrow 3} f(x) =$$

$$\lim_{x \rightarrow 4} f(x) =$$

$$\lim_{x \rightarrow 5} f(x) =$$

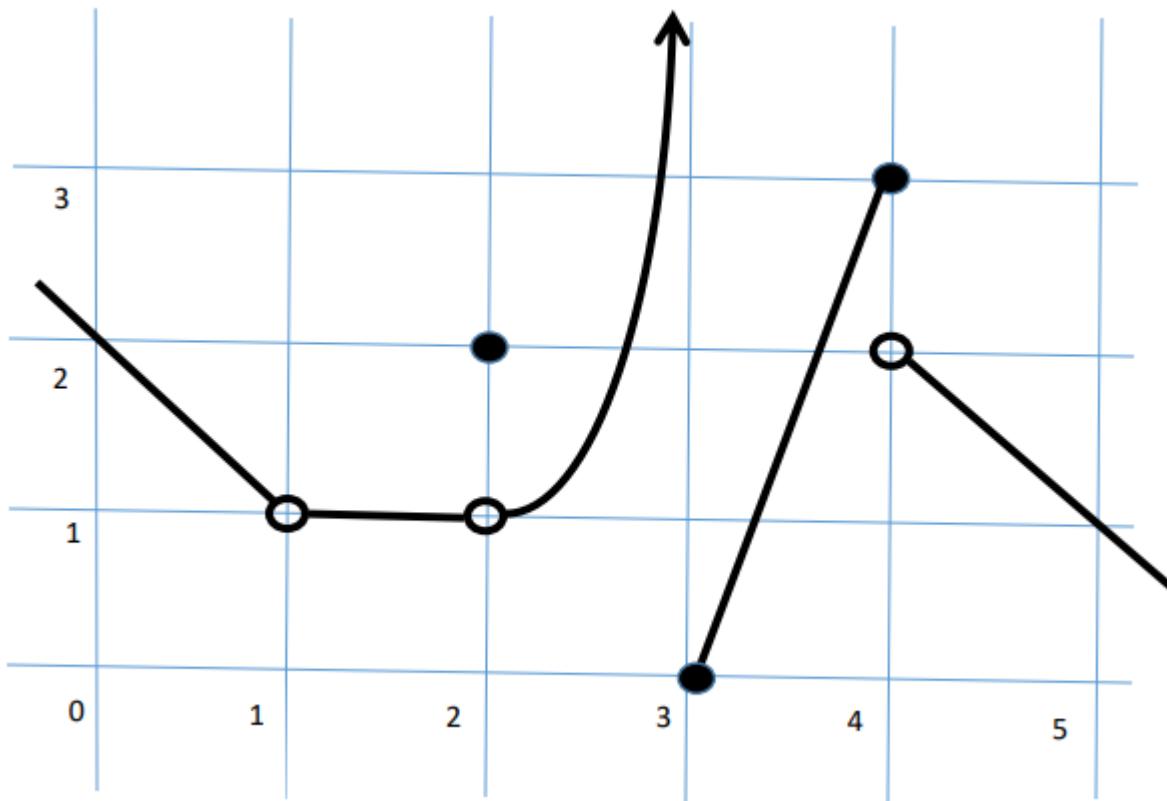
$$\lim_{x \rightarrow 1^+} f(x) =$$

$$\lim_{x \rightarrow 3^-} f(x) =$$

$$\lim_{x \rightarrow 3^+} f(x) =$$

$$\lim_{x \rightarrow 4^-} f(x) =$$

$$\lim_{x \rightarrow 4^+} f(x) =$$



Find the following limits, if they exist:

$$1. \lim_{x \rightarrow 2} \frac{x^2 - 4}{x^2 + 4}$$

$$2. \lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2}$$

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

$$4. \lim_{x \rightarrow 2^-} \frac{x^2 + 1}{x^2 - 4}$$

$$5. \lim_{x \rightarrow -2^-} \frac{x^2 + 1}{x^2 - 4}$$

$$6. \lim_{x \rightarrow 2} \frac{x^2 + 1}{x^2 - 4}$$

$$7. \lim_{h \rightarrow 0} \frac{\frac{1}{2+h} - \frac{1}{2}}{h}$$

$$8. \lim_{x \rightarrow 2} \frac{x^2 - 4}{x^2 + x - 6}$$

$$9. \lim_{\theta \rightarrow -1} \frac{\theta^2 - 2\theta - 3}{\theta^2 + 3\theta + 2}$$

$$10. \lim_{x \rightarrow 3} \frac{\sqrt{2x + 3} - 3}{x - 3}$$