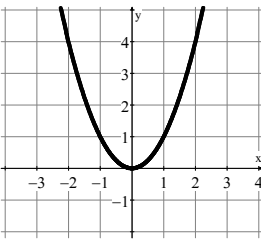
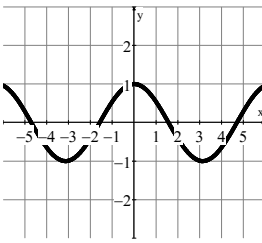
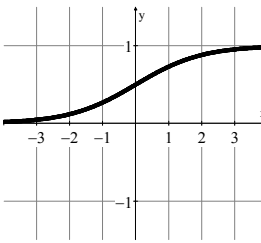
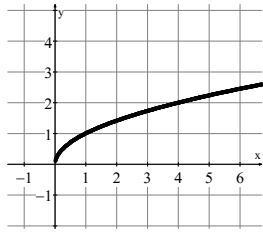
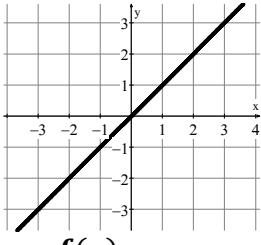
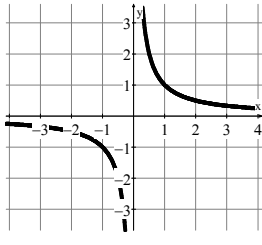
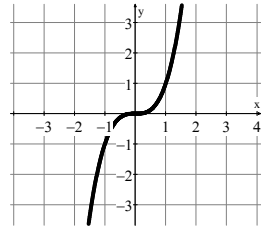
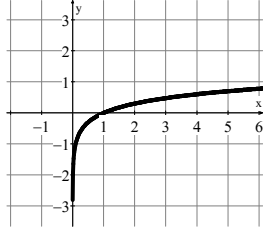
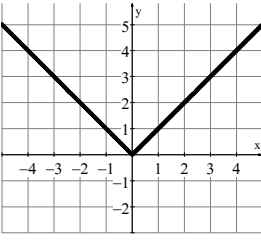
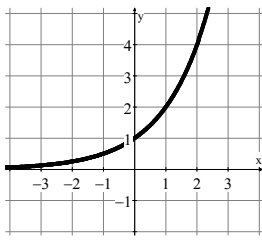
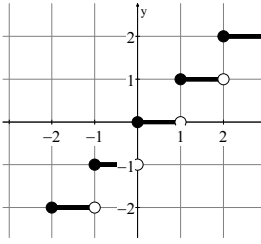
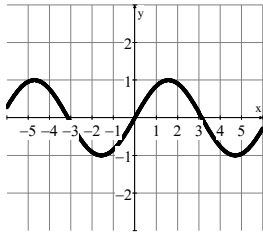


## 2.2 Corrective Assignment – Domain and Range (Graphs)

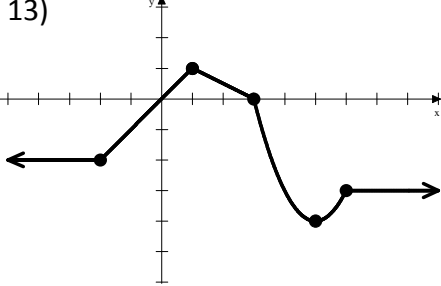
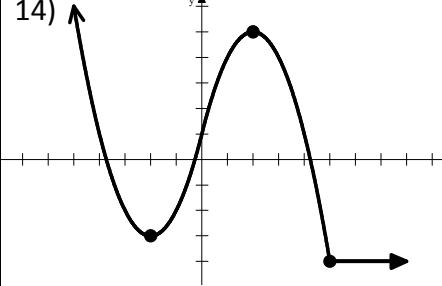
Name: \_\_\_\_\_

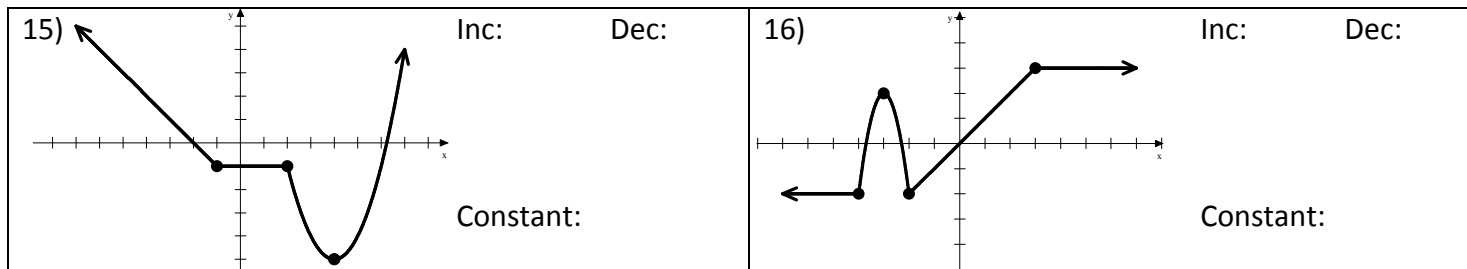
Pre-Calculus

For 1-12, name the basic function shown and write the equation. Try not to look back at your notes if possible.

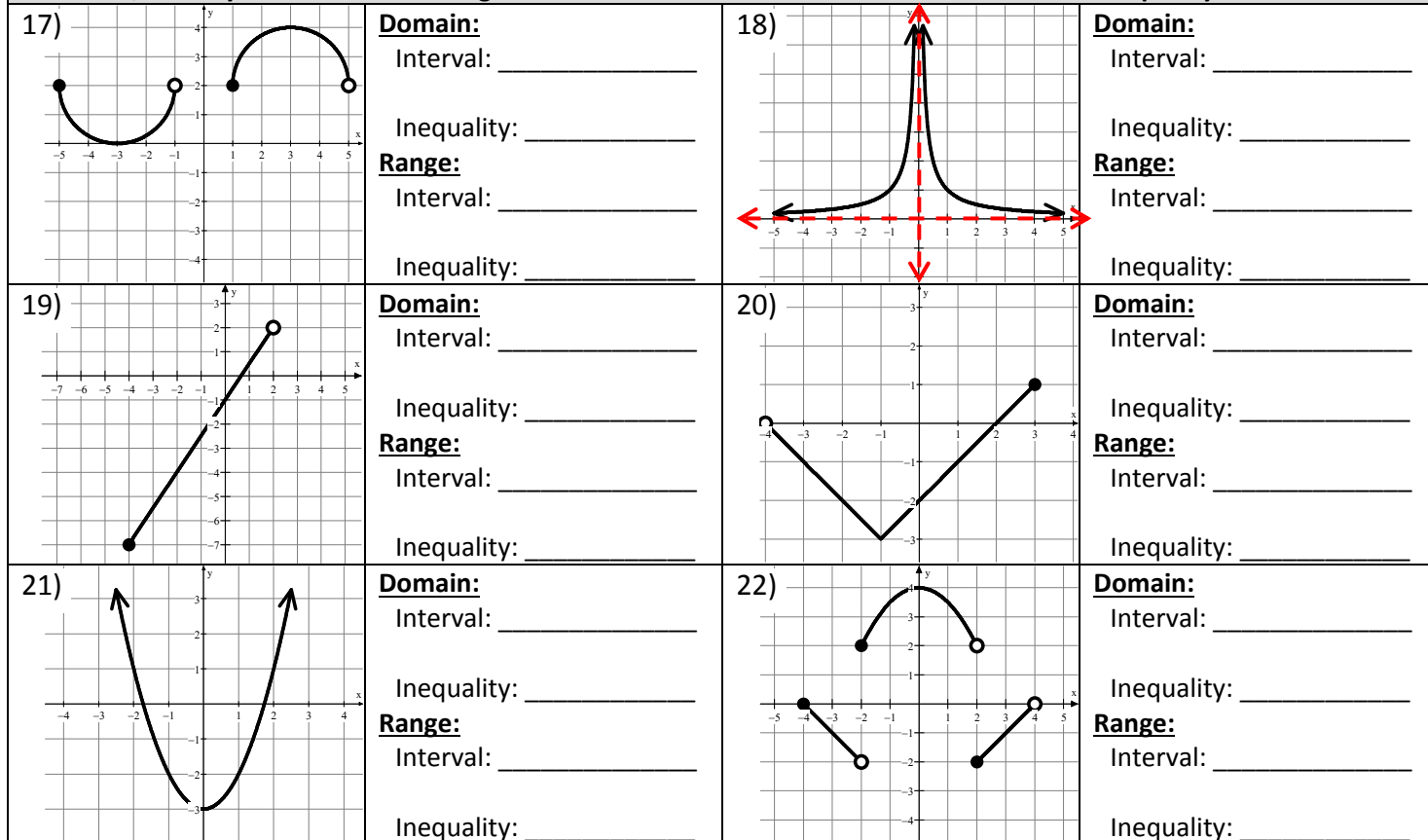
<p>1) Function</p>  <p><math>f(x) =</math></p>	<p>2) Function</p>  <p><math>f(x) =</math></p>	<p>3) Function</p>  <p><math>f(x) =</math></p>	<p>4) Function</p>  <p><math>f(x) =</math></p>
<p>5) Function</p>  <p><math>f(x) =</math></p>	<p>6) Function</p>  <p><math>f(x) =</math></p>	<p>7) Function</p>  <p><math>f(x) =</math></p>	<p>8) Function</p>  <p><math>f(x) =</math></p>
<p>9) Function</p>  <p><math>f(x) =</math></p>	<p>10) Function</p>  <p><math>f(x) =</math></p>	<p>11) Function</p>  <p><math>f(x) =</math></p>	<p>12) Function</p>  <p><math>f(x) =</math></p>

For 13-16, identify the domain intervals where each function is increasing, decreasing, and constant. Use interval notation.

<p>13)</p>  <p>Inc: _____ Dec: _____</p> <p>Constant: _____</p>	<p>14)</p>  <p>Inc: _____ Dec: _____</p> <p>Constant: _____</p>
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**For 17-26, identify the domain and range of each function. Use both interval notation and inequality notation**



**ANSWERS:**

1. Quadratic, $f(x) = x^2$ 2. Cosine, $f(x) = \cos x$ 3. Logistic, $f(x) = \frac{1}{1+e^{-x}}$ 4. Square Root, $f(x) = \sqrt{x}$ 5. Linear, $f(x) = x$ 6. Rational, $f(x) = \frac{1}{x}$ 7. Cubic, $f(x) = x^3$ 8. Logarithm, $f(x) = \log x$ 9. Absolute Value, $f(x) =  x $ 10. Exponential, $f(x) = 2^x$ 11. Great. Int, $f(x) = \text{int}(x)$ 12. Sine, $f(x) = \sin x$	13. Inc: $(-2, 1) \cup (5, 6)$ Dec: $(1, 5)$ Const: $(-\infty, -2) \cup (6, \infty)$ 14. Inc: $(-2, 2)$ Dec: $(-\infty, -2) \cup (2, 5)$ Const: $(5, \infty)$ 15. Inc: $(4, \infty)$ Dec: $(-\infty, -1) \cup (2, 4)$ Const: $(-1, 2)$ 16. Inc: $(-4, -3) \cup (-2, 3)$ Dec: $(-3, -2)$ Const: $(-\infty, -4) \cup (3, \infty)$	17. D Interval: $[-5, -1) \cup [1, 5)$ D Ineq: $-5 \leq x < -1$ or $1 \leq x < 5$ R Interval: $[0, 4]$ R Ineq: $0 \leq y \leq 4$ 18. D Interval: $(-\infty, 0) \cup (0, \infty)$ D Ineq: $x < 0$ or $x > 0$ R Interval: $(0, \infty)$ R Ineq: $y > 0$ 19. D Interval: $[-4, 2)$ D Ineq: $-4 \leq x < 2$ R Interval: $[-7, 2)$ R Ineq: $-7 \leq y < 2$	20. D Interval: $(-4, 3]$ D Ineq: $-4 < x \leq 3$ R Interval: $[-3, 1]$ R Ineq: $-3 \leq y \leq 1$ 21. D Interval: $(-\infty, \infty)$ D Ineq: <i>all real numbers</i> R Interval: $[-3, \infty)$ R Ineq: $y \geq -3$ 22. D Interval: $[-4, 4)$ D Ineq: $-4 \leq x < 4$ R Interval: $[-2, 0] \cup [2, 4]$ R Ineq: $-2 \leq y \leq 0$ and $2 \leq y \leq 4$
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