

Math III More Piece-Wise Practice

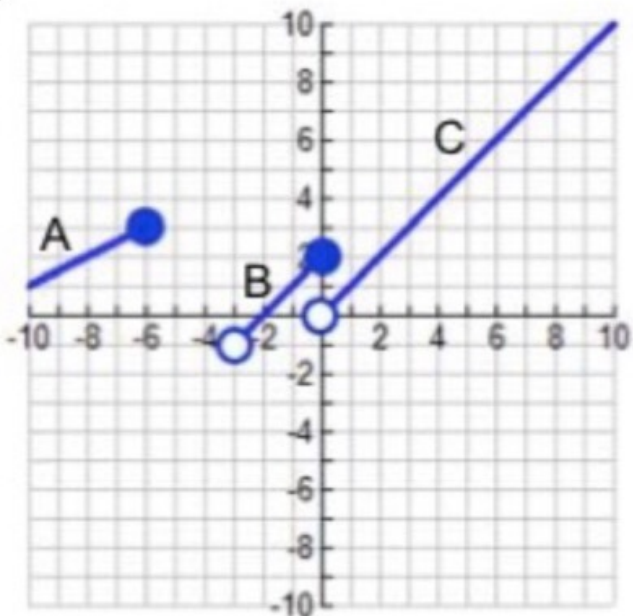
Identify by letter (A, B, C, D) the piece in which  $f(-3)$  resides. **B**

Identify by letter (A, B, C, D) the piece in which  $f(9)$  resides. **D**

Identify by letter (A, B, C, D) the piece in which  $f(3)$  resides. **B**

For what values of  $x$  on  $[-10, 10]$  is  $f(x)$  not defined? **-7 and 7**

Find the value of  $f(-4)$ . **0**      Find the value of  $f(3)$ . **7**      Find the value of  $f(8)$ . **-3**



Identify by letter (A, B, C) the piece in which  $g(0)$  resides. **B**

Identify by letter (A, B, C) the piece in which  $g(3)$  resides. **C**

Identify by letter (A, B, C) the piece in which  $g(-8)$  resides. **A**

For what values of  $x$  on  $[-10, 10]$  is  $g(x)$  not defined?  **$-6 < x \leq -3$**

Find the value of  $g(-3)$ . **undef**

Find the value of  $g(0)$ . **2**

Find the value of  $g(4)$ . **4**

Math III
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$$h(x) = \begin{cases} 2x-3 & x < -7 & \text{A} \\ -2x+4 & -7 \leq x \leq 4 & \text{B} \\ x+5 & 5 < x \leq 7 & \text{C} \\ x-7 & x > 7 & \text{D} \end{cases}$$

- Identify by letter (A, B, C, D) the piece in which  $h(6)$  resides. **C**
- Identify by letter (A, B, C, D) the piece in which  $h(-7)$  resides. **B**
- Identify by letter (A, B, C, D) the piece in which  $h(12)$  resides. **D**
- For what values of  $x$  is  $h(x)$  not defined?  **$4 < x \leq 5$**
- Find the value of  $h(7)$ . **12**
- Find the value of  $h(10)$ . **3**
- Find the value of  $h(-7)$ . **18**

$$k(x) = \begin{cases} -3x + 4 & x < -4 & \text{A} \\ x^2 + 5 & -4 < x < 3 & \text{B} \\ 6x - 1 & 3 \leq x \leq 7 & \text{C} \\ 6 & x > 7 & \text{D} \end{cases}$$

- . Identify by letter (A, B, C, D) the piece in which  $k(0)$  resides. **B**
- . Identify by letter (A, B, C, D) the piece in which  $k(3)$  resides. **C**
- . Identify by letter (A, B, C, D) the piece in which  $k(9)$  resides. **D**
- . For what values of  $x$  is  $k(x)$  not defined? **at -4**
- . Find the value of  $k(-5)$ . **19**      . Find the value of  $k(7)$ . **41**      Find the value of  $k(12)$ .

**6**

The admission rates at an amusement park are as follows:

- Children 5 years old and under: free
- Children between 5 and 12 years: \$10
- Children between 12 (inclusive) and 18 years: \$25
- Adults 18 and over: \$35

Create a piecewise function  $a(x)$  where  $a(x)$  represents the admission rate and  $x$  represents the age of the person, and graph it

$$a(x) = \begin{cases} 0 & ; 0 \leq x \leq 5 \\ 10 & ; 5 < x < 12 \\ 25 & ; 12 \leq x < 18 \\ 35 & ; x \geq 18 \end{cases}$$

