

Piecewise Function Worksheet 2

Name _____

Block _____ Date _____

1.
$$y = \begin{cases} x^3 + x^2 - 2x & x < 2 \\ 3x + 2 & x \geq 2 \end{cases}$$

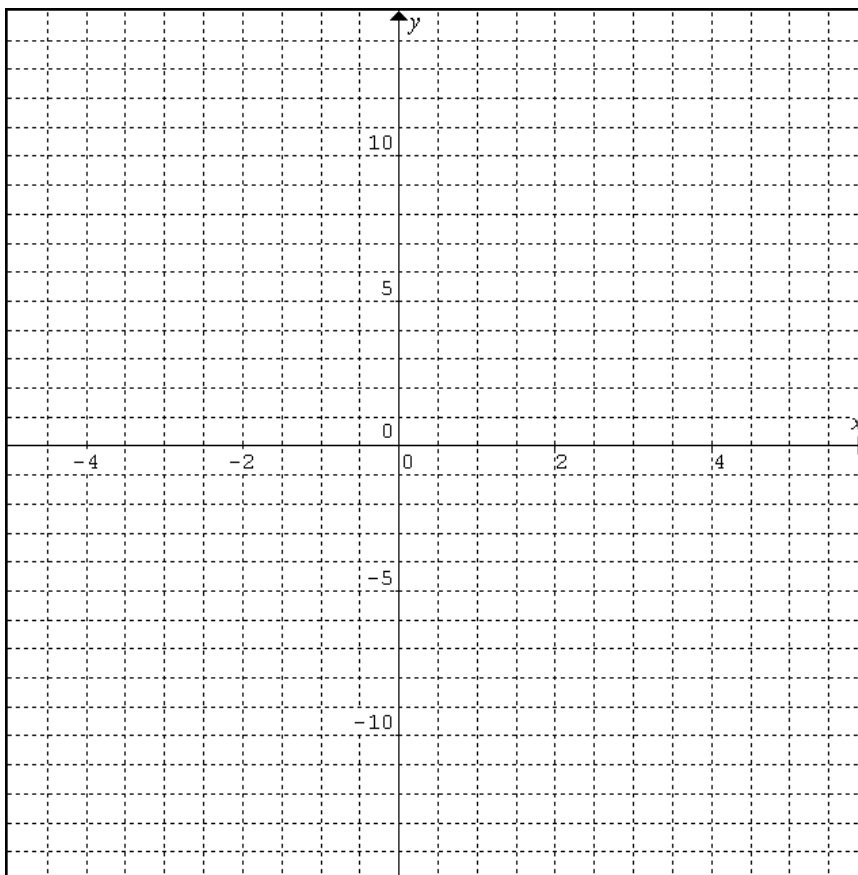
a. When x is less than two, use this equation: _____

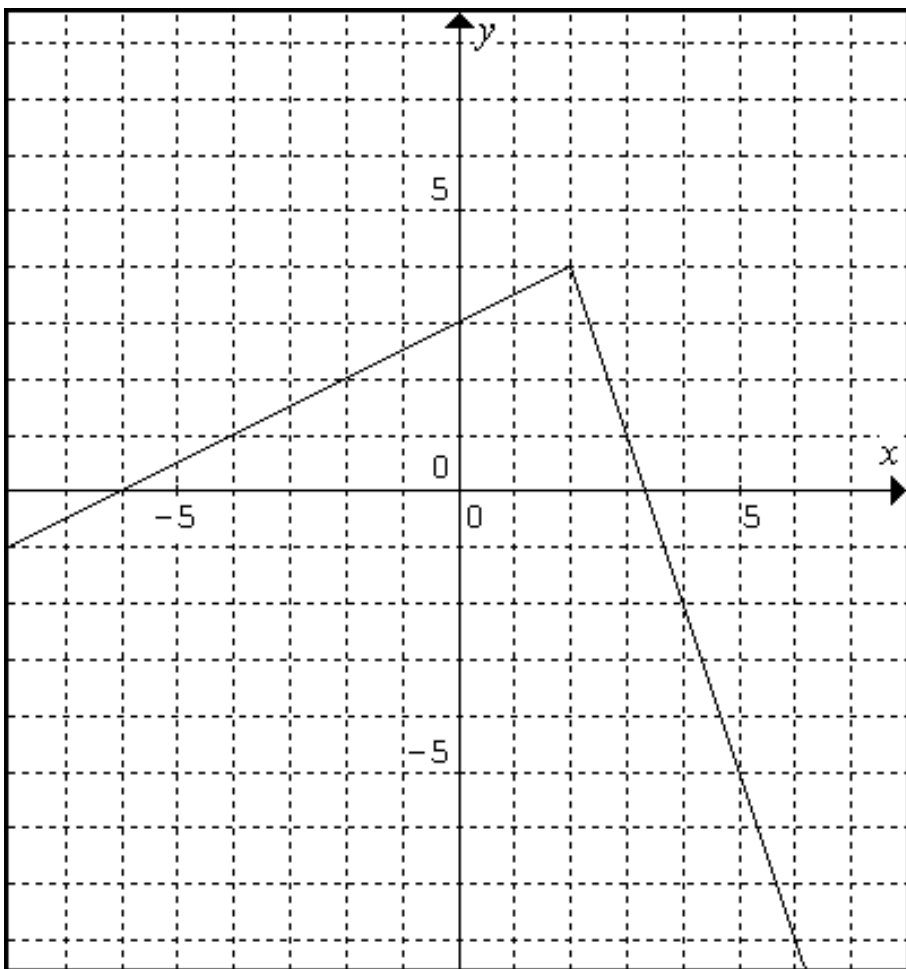
b. When x is more than (and including) two, use this equation: _____

c. Fill out this table for both pieces of this equation:

x	-3	-2.5	-2	-1.5	-1	-0.5	0	0.5	1	1.5	2	3	4
y													

d. Graph it! (Make curvy look curvy and straight look straight!)





2.

The graph above represents a piece-wise function.

- a. For each piece, find an equation that fits the line. You will need to determine the slope, m , and the y -intercept, b . (HINT: use the slope and one point (x, y) to solve for b .)

- b. Now, think which interval each equation belongs to and write the equation of this piece-wise function.

$$f(x) = \begin{cases} \underline{\hspace{4cm}} & x \underline{\hspace{1cm}} \underline{\hspace{1cm}} \\ \underline{\hspace{4cm}} & x \underline{\hspace{1cm}} \underline{\hspace{1cm}} \end{cases}$$