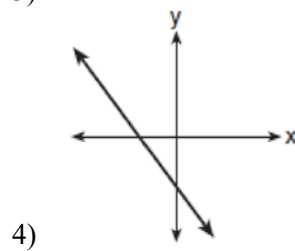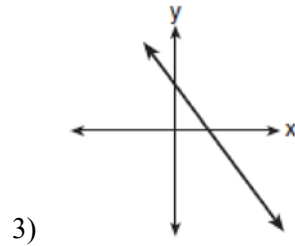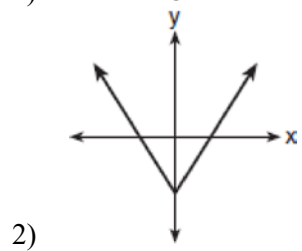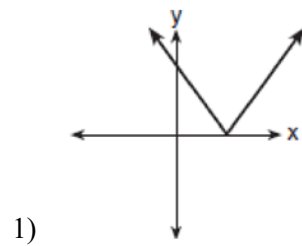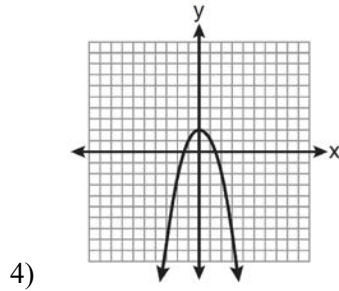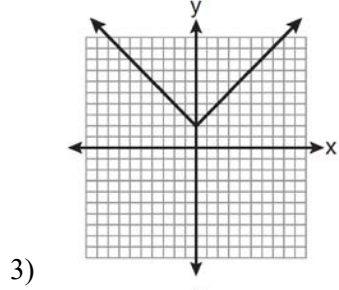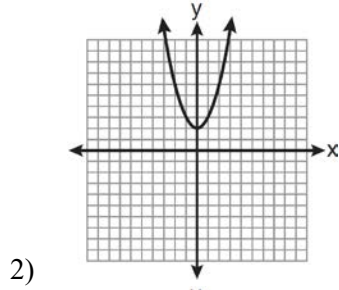## F.IF.C.7: Graphing Absolute Value Functions

1 The graph below represents f(x).
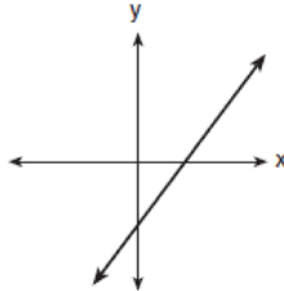
Which graph best represents $|f(x)|$?

1)

2)

3)

4)

2 Which is the graph of $y = |x| + 2$?

1)

2)

3)

4)
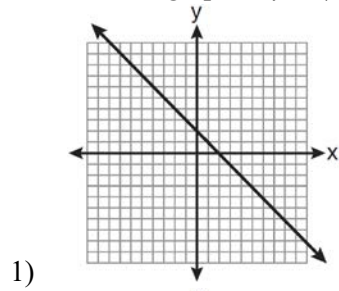
3   Which graph represents the equation $y = |x - 2|$?

1)

2)

3)

4)
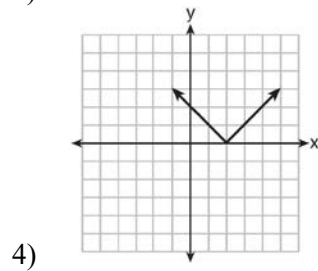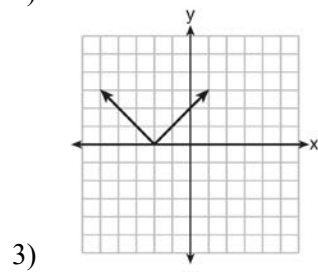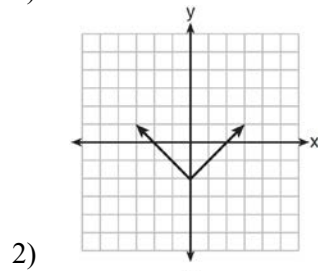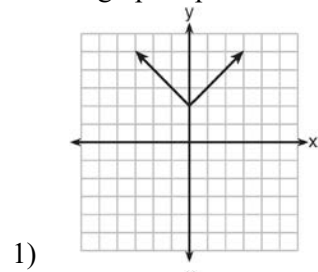
4   What is the *minimum* value of the function $y = |x + 3| - 2$?
   1) −2   3) 3
   2) 2   4) −3

5   Which equation represents the function shown in the accompanying graph?
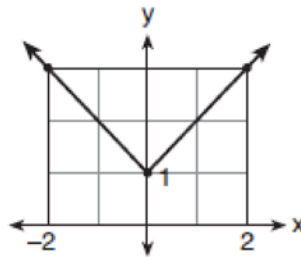
1) $f(x) = |x| + 1$ 3) $f(x) = |x + 1|$
2) $f(x) = |x| - 1$ 4) $f(x) = |x - 1|$

6   The table of values below can be modeled by which equation?

x	y
-2	5
-1	4
0	3
1	4
2	5

1) $f(x) = |x + 3|$ 3) $f(y) = |y + 3|$
2) $f(x) = |x| + 3$ 4) $f(y) = |y| + 3$

7   On the set of axes below, graph $f(x) = |x - 3| + 2$.

f(x)

8   On the set of axes below, graph $y = 2|x + 3|$. Include the interval $-7 \le x \le 1$.

y

9   Graph the function $f(x) = \left| \frac{1}{2}x + 3 \right|$ over the interval $-8 \le x \le 0$.

10   On the set of axes below, graph the function $y = |x + 1|$.

State the range of the function. State the domain over which the function is increasing.
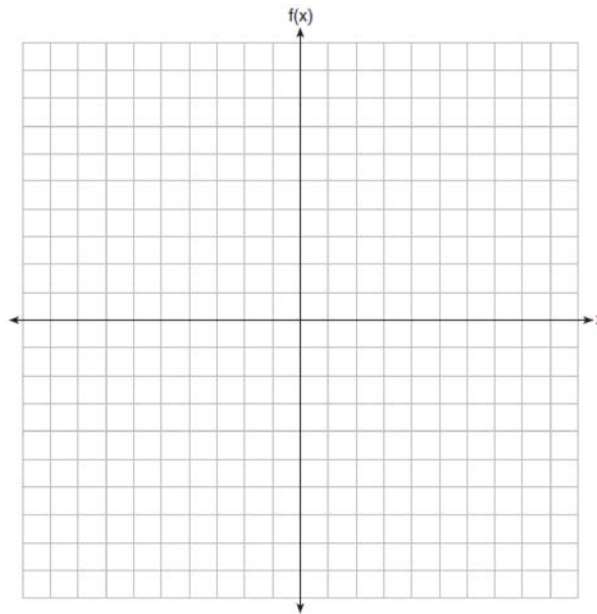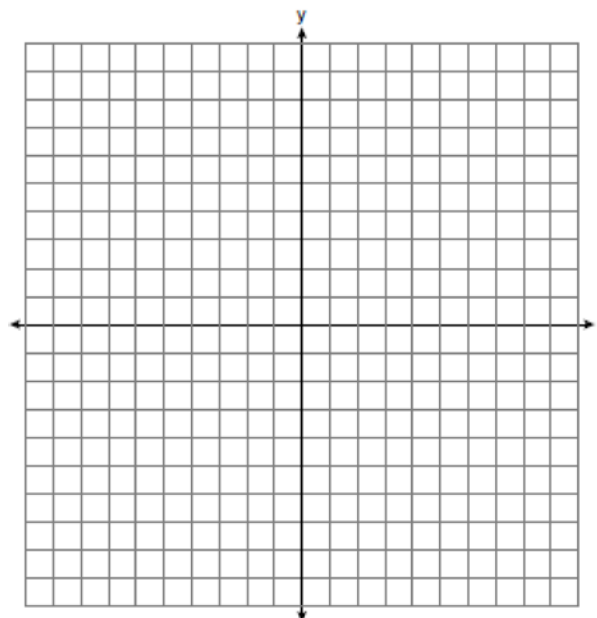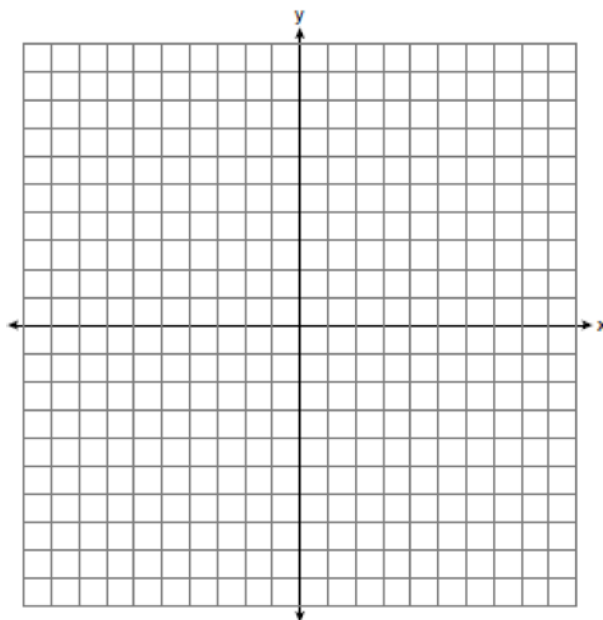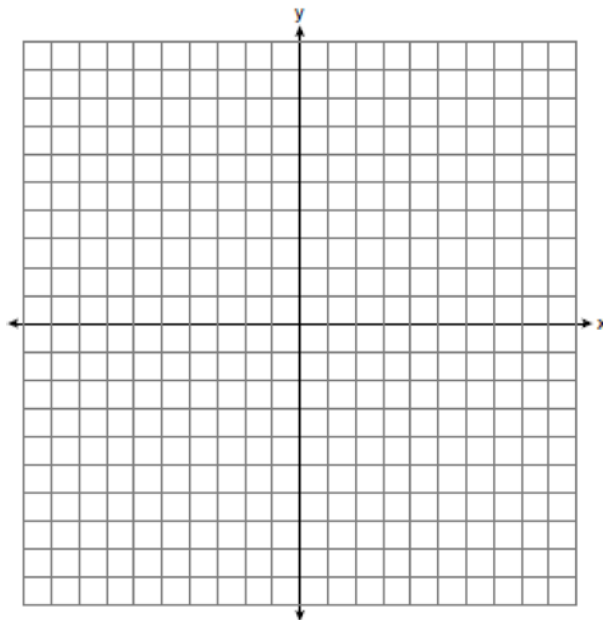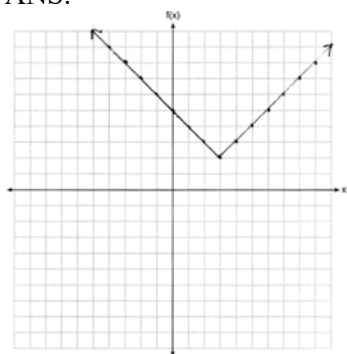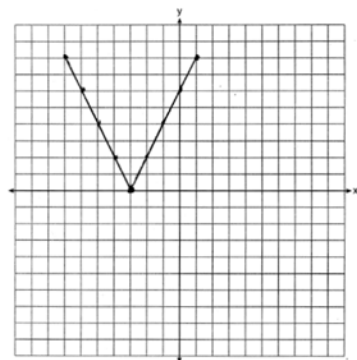
F.IF.C.7: Graphing Absolute Value Functions
Answer Section

1 ANS: 1   REF: 010414b
2 ANS: 3   REF: 011117ia
3 ANS: 4   REF: 081425ia
4 ANS: 1   REF: 011712ai
5 ANS: 1   REF: 080707b
6 ANS: 2   REF: 011502a2
7 ANS:

REF: 011825ai

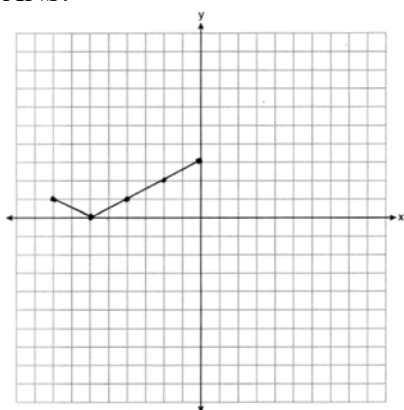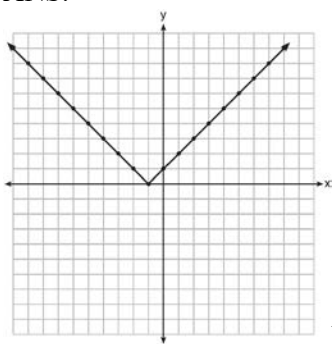8 ANS:

REF: 011333ia

9 ANS:

REF: 062126ai

10 ANS:

Range: $y \geq 0$. The function is increasing for $x > -1$.

REF: fall1310ai