Name: _____ Date: _____

BLM 7–4

Section 7.1 Extra Practice

1. Evaluate.

a) $|-42|$

b) $\left|\frac{-82}{3}\right|$

c) $|3.75|$

d) $\left|-1\frac{5}{6}\right|$

2. Order each set of numbers from least to greatest.

a) $|-4|, |-4.5|, |-3.9|, |-3|, |-4.1|$

b) $\left|-\frac{6}{5}\right|, -\left|\frac{6}{10}\right|, \left|-\frac{6}{15}\right|, \left|-\frac{6}{20}\right|, \left|\frac{6}{25}\right|$

3. Order each set of numbers from greatest to least.

a) $\left|-\frac{3}{4}\right|, -|1.2|, \left|-\frac{5}{3}\right|, |-0.6|, |-2.1|$

b) $\left|\frac{46}{2}\right|, -23, \left|-\frac{1}{23}\right|, \left|-\frac{2}{46}\right|, -2\left(\left|\frac{1}{23}\right|\right)$

4. Evaluate each expression.

a) $|-4-10|$

b) $|3-5(7)|$

c) $5(|-2|)+|-3|$

d) $-3\left(\left|\frac{4}{5}\right|\right)$

5. Determine the value of each absolute value expression.

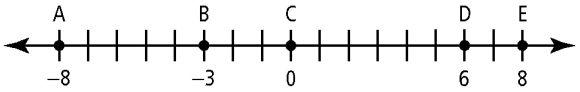
a) $|(-2)^3-2^3|$

b) $4\left(-2\left|\frac{3}{4}\right|\right)-\left(\left|\frac{-1}{4}\right|\right)$

c) $\left|5\left(\frac{2}{3}\right)-8\left(\frac{5}{6}\right)\right|$

d) $(|3^2-4^2|)^2$

6. Determine the distance between the specified values.



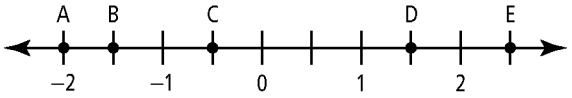
a) A and C

b) A and E

c) D and B

d) E and C

7. Determine the distance between the specified values.



a) A and C

b) E and B

c) C and D

d) B and D

Name: _____ Date: _____

BLM 7–5

Section 7.2 Extra Practice

1. Given the table of values for $y = f(x)$, create a table of values for $y = |f(x)|$.

a)

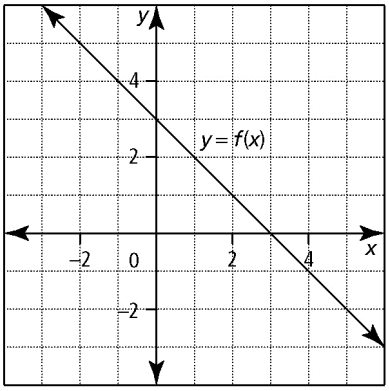
x	y
0	1
2	0
4	−1
6	−2
8	−3

b)

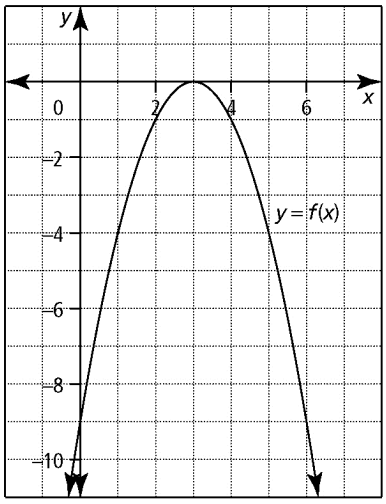
x	y
−4	−8
−2	0
0	0
2	−8
4	−24

2. Use the graph of $y = f(x)$ to sketch the graph of $y = |f(x)|$.

a)



b)



3. Sketch the graph of each function. State the intercepts, and the domain and range.

a) $f(x) = |2x + 1|$

b) $g(x) = |-x - 4|$

4. Sketch the graph of each function. State the intercepts, and domain and range.

a) $y = |-x^2 - 6x - 5|$

b) $f(x) = |(2x + 1)(x - 3)|$

5. Express each function as a piecewise function.

a) $y = |5x + 1|$

b) $y = \left|\frac{-1}{2}x + 4\right|$

c) $y = |2(x + 2)^2 - 8|$

d) $y = |-2(x + 3)(x - 1)|$

6. Consider the following functions:

- $f(x) = x + 5$
- $g(x) = |f(x)|$
- $h(x) = (x + 5)^2$
- $k(x) = |h(x)|$

a) Which functions are identical?

b) Which functions have the same domain?

c) Which functions have the same range?

d) Which functions have the same x-intercept(s)?

7. For each pair of functions, determine the invariant point(s).

a) $y = 3x - 9$ and $y = |3x - 9|$

b) $y = -x^2$ and $y = |-x^2|$

c) $y = -x^2 - 4x$ and $y = |-x^2 - 4x|$

d) $y = (x + 1)^2 + 2$ and $y = |(x + 1)^2 + 2|$