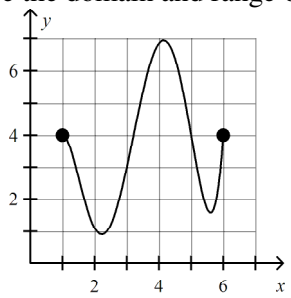
Name: _____ **Class:** _____ **Date:** _____ **ID: A**

4.2 Relations, Functions, Domain & Range Quiz

____ 1. Give the domain and range of the relation.



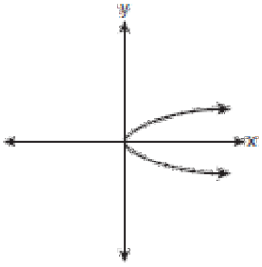
a. D: $0 \le x \le 7$; R: $1 \le y \le 7$
b. D: $1 \le x \le 6$; R: $1 \le y \le 7$
c. D: $2 \le x \le 6$; R: $4 \le y \le 7$
d. D: $1 \le x \le 7$; R: $1 \le y \le 6$

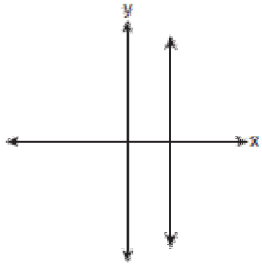
____ 2. Give the domain and range of the relation. Tell whether the relation is a function.

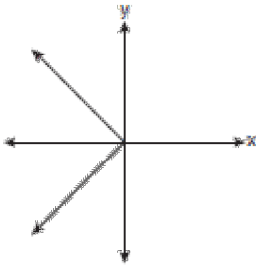
x	*y*
0	–5
1	0
2	3
3	6

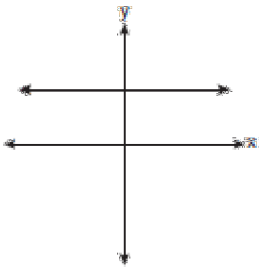
a. D: {0, 1, 2, 3}; R: {–5, 0, 3, 6}
The relation is not a function.
b. D: {–5, 0, 3, 6}; R: {0, 1, 2, 3}
The relation is not a function.
c. D: {0, 1, 2, 3}; R: {–5, 0, 3, 6}
The relation is a function.
d. D: {–5, 0, 3, 6}; R: {0, 1, 2, 3}
The relation is a function.

____ 3. Which graph represents a function?

a. 

c. 

b. 

d. 

4.2 Relations, Functions, Domain & Range Quiz
Answer Section

MULTIPLE CHOICE

1. ANS: B
The domain is the set of all x-values. The graph goes from 1 to 6 on the x-axis, so D: $1 \le x \le 6$.
The range is the set of all y-values. The graph goes from 1 to 7 on the y-axis, so R: $1 \le y \le 7$.

	Feedback
A	Check the domain.
B	Correct!
C	The domain is the set of all x-values. The range is the set of all y-values.
D	The domain is the set of all x-values. The range is the set of all y-values.

PTS: 1 DIF: Average REF: Page 237
OBJ: 4-2.2 Finding the Domain and Range of a Relation NAT: 12.5.1.g
STA: 8.A.17 TOP: 4-2 Relations and Functions KEY: domain | range | function | relation

2. ANS: C
A function is a special type of relation that pairs each x-value with exactly one y-value. If the same x-value has more than one y-value, then the relation is not a function.

	Feedback
A	A function has a unique y-value for each x-value.
B	A function has a unique y-value for each x-value.
C	Correct!
D	Check the domain and the range. The domain is the set of all x-values; the range is the set of all y-values.

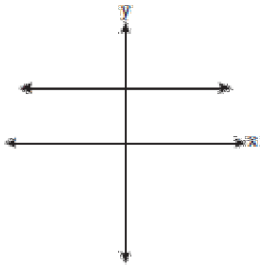
PTS: 1 DIF: Basic REF: Page 237 OBJ: 4-2.3 Identifying Functions
NAT: 12.5.1.e STA: A.G.3 TOP: 4-2 Relations and Functions
KEY: function | relation | input | output

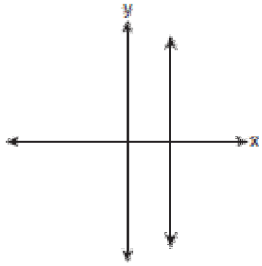
3. ANS: D PTS: 2 REF: fall0730ia STA: A.G.3
TOP: Defining Functions

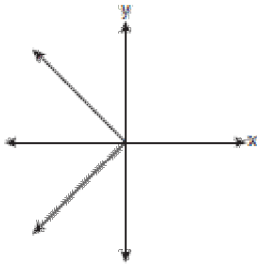
Name: _____ **Class:** _____ **Date:** _____ **ID: B**

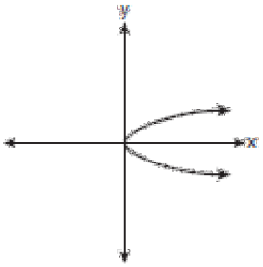
4.2 Relations, Functions, Domain & Range Quiz

____ 1. Which graph represents a function?

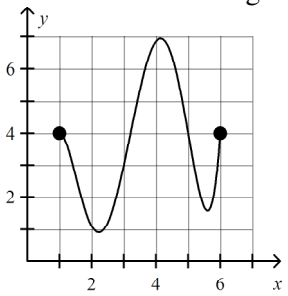
a. 

c. 

b. 

d. 

____ 2. Give the domain and range of the relation.



a. D: $1 \le x \le 7$; R: $1 \le y \le 6$
b. D: $0 \le x \le 7$; R: $1 \le y \le 7$
c. D: $2 \le x \le 6$; R: $4 \le y \le 7$
d. D: $1 \le x \le 6$; R: $1 \le y \le 7$

____ 3. Give the domain and range of the relation. Tell whether the relation is a function.

x	*y*
0	–4
0	–2
1	2
2	5

a. D: {0, 1, 2}; R: {–4, –2, 2, 5}
The relation is not a function.
b. D: {–4, –2, 2, 5}; R: {0, 1, 2}
The relation is not a function.
c. D: {0, 1, 2}; R: {–4, –2, 2, 5}
The relation is a function.
d. D: {–4, –2, 2, 5}; R: {0, 1, 2}
The relation is a function.

4.2 Relations, Functions, Domain & Range Quiz
Answer Section

MULTIPLE CHOICE

1. ANS: A PTS: 2 REF: fall0730ia STA: A.G.3
   TOP: Defining Functions
2. ANS: D
   The domain is the set of all x-values. The graph goes from 1 to 6 on the x-axis, so D: $1 \le x \le 6$.
   The range is the set of all y-values. The graph goes from 1 to 7 on the y-axis, so R: $1 \le y \le 7$.

	Feedback
A	The domain is the set of all x-values. The range is the set of all y-values.
B	Check the domain.
C	The domain is the set of all x-values. The range is the set of all y-values.
D	Correct!

   PTS: 1 DIF: Average REF: Page 237
   OBJ: 4-2.2 Finding the Domain and Range of a Relation NAT: 12.5.1.g
   STA: 8.A.17 TOP: 4-2 Relations and Functions KEY: domain | range | function | relation
3. ANS: A
   A function is a special type of relation that pairs each x-value with exactly one y-value. If the same x-value has more than one y-value, then the relation is not a function.

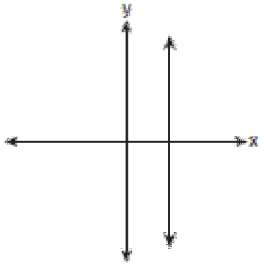
	Feedback
A	Correct!
B	Check the domain and the range. The domain is the set of all x-values; the range is the set of all y-values.
C	A function has a unique y-value for each x-value.
D	A function has a unique y-value for each x-value.

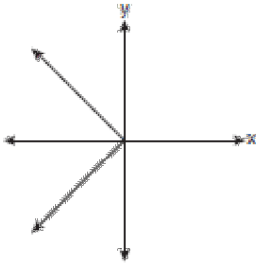
   PTS: 1 DIF: Basic REF: Page 237 OBJ: 4-2.3 Identifying Functions
   NAT: 12.5.1.e STA: A.G.3 TOP: 4-2 Relations and Functions
   KEY: function | relation | input | output

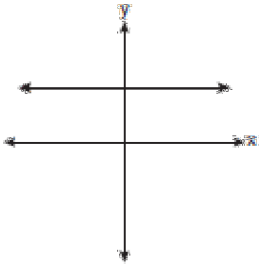
Name: _____ **Class:** _____ **Date:** _____ **ID: C**

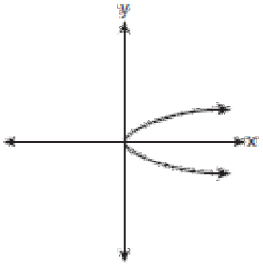
4.2 Relations, Functions, Domain & Range Quiz

____ 1. Which graph represents a function?

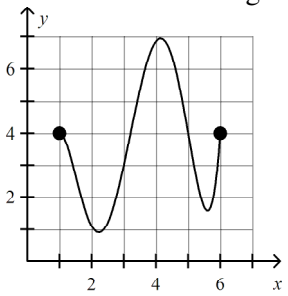
a. 

c. 

b. 

d. 

____ 2. Give the domain and range of the relation.



a. D: $0 \le x \le 7$; R: $1 \le y \le 7$
b. D: $2 \le x \le 6$; R: $4 \le y \le 7$
c. D: $1 \le x \le 7$; R: $1 \le y \le 6$
d. D: $1 \le x \le 6$; R: $1 \le y \le 7$

____ 3. Give the domain and range of the relation. Tell whether the relation is a function.

x	*y*
0	–5
0	0
1	2
2	4

a. D: {–5, 0, 2, 4}; R: {0, 1, 2}
The relation is a function.
b. D: {0, 1, 2}; R: {–5, 0, 2, 4}
The relation is not a function.
c. D: {–5, 0, 2, 4}; R: {0, 1, 2}
The relation is not a function.
d. D: {0, 1, 2}; R: {–5, 0, 2, 4}
The relation is a function.

4.2 Relations, Functions, Domain & Range Quiz
Answer Section

MULTIPLE CHOICE

1. ANS: B PTS: 2 REF: fall0730ia STA: A.G.3
   TOP: Defining Functions
2. ANS: D
   The domain is the set of all x-values. The graph goes from 1 to 6 on the x-axis, so D: $1 \le x \le 6$.
   The range is the set of all y-values. The graph goes from 1 to 7 on the y-axis, so R: $1 \le y \le 7$.

	Feedback
A	Check the domain.
B	The domain is the set of all x-values. The range is the set of all y-values.
C	The domain is the set of all x-values. The range is the set of all y-values.
D	Correct!

   PTS: 1 DIF: Average REF: Page 237
   OBJ: 4-2.2 Finding the Domain and Range of a Relation NAT: 12.5.1.g
   STA: 8.A.17 TOP: 4-2 Relations and Functions KEY: domain | range | function | relation
3. ANS: B
   A function is a special type of relation that pairs each x-value with exactly one y-value. If the same x-value has more than one y-value, then the relation is not a function.

	Feedback
A	A function has a unique y-value for each x-value.
B	Correct!
C	Check the domain and the range. The domain is the set of all x-values; the range is the set of all y-values.
D	A function has a unique y-value for each x-value.

   PTS: 1 DIF: Basic REF: Page 237 OBJ: 4-2.3 Identifying Functions
   NAT: 12.5.1.e STA: A.G.3 TOP: 4-2 Relations and Functions
   KEY: function | relation | input | output