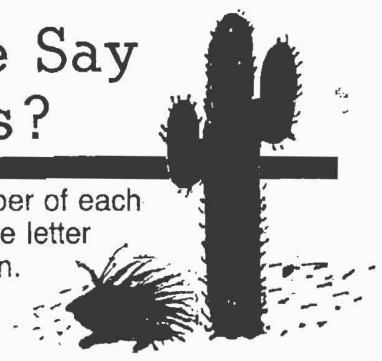# What Did the Baby Porcupine Say When It Backed Into a Cactus?

Determine which of the relations below are functions. Find the number of each relation that *is* a function at the bottom of the page and cross out the letter below it. When you finish, the answer to the title question will remain.

① $\{(-2, 7), (-1, 5), (0, 3), (1, 1), (2, 1)\}$

② $\{(-7, 20), (3, 5), (0, 5), (-2, 0), (6, -4), (-6, -9), (4, 4)\}$

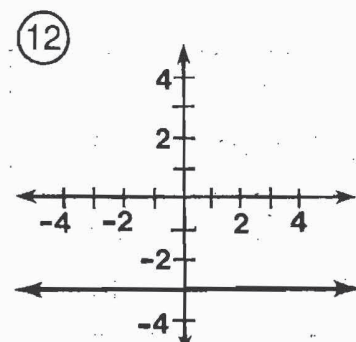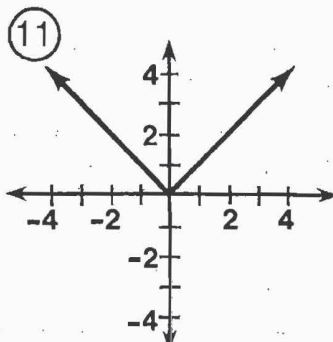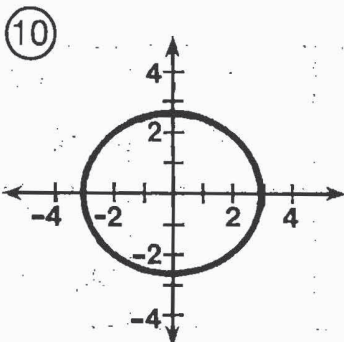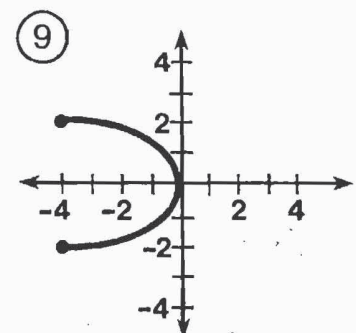③ $\{(4, 8), (-3, -2), (9, 6), (2, -1), (-4, -5), (2, 7), (-8, 0)\}$

④

x	y
0	-19
1	-12
2	-4
3	3
4	13
5	27

⑤

x	y
-5	8
-3	8
-1	-2
1	-2
3	11
5	23

⑥

x	y
-2	-7
-2	5
0	-16
2	0
2	6

⑦

⑧

⑨

⑩

⑪

⑫
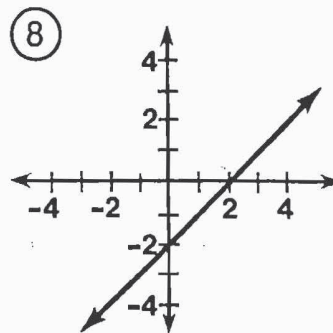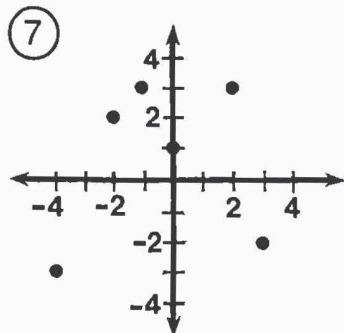
5	12	10	7	1	3	9	11	2	4	6	8
F	O	H	A	S	I	M	T	O	P	A	D

OBJECTIVE 1–a: To determine whether or not a relation is a function.

ALGEBRA

Name: _____

Relations and Functions

Period: ____

Is each relation a function? Use a mapping diagram. Explain your answer.

1.   {(4, 7), (9, 11), (4, 6), (10, 2)}

2.   {(-5, -8), (2, 4), (3, 4), (-6, -8)}

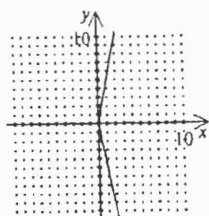Is it a function? _____

Is it a function? _____

Explain:

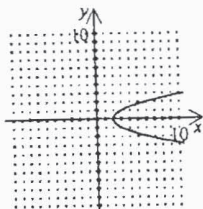Explain:

Identify which of the following graphs are NOT functions.
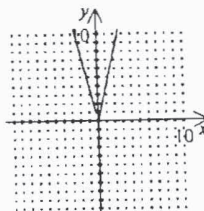
Answer(s): _____.   (there may be more than one!)

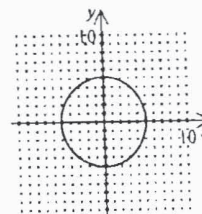3. [A]   [B]   [C]   [D]

Is each relation a function? Use the vertical line test. Explain your answer.

4.   {(2, 5), (-3, 5), (0, 5), (3, 5)}

5.   {(-1, -9), (1, 3), (-I, 9), (6, 6)}