Algebra 2

Day 40 Warm Up

	A.	B.
1. $6^x = 36$	$x = 6$	$x = 2$
2. $3^x \cdot 3 = 3^{x+1}$	TRUE	FALSE
3. $(2 \cdot 3^x)^2 = 2 \cdot 3^{2x}$	TRUE	FALSE
4. $(a^{\frac{1}{4}} b^{-\frac{3}{2}})^0$	0	1
5. $(x^{\frac{3}{2}} y^{\frac{9}{4}})^4$	$x^6 y^9$	$x^{\frac{12}{8}} y^{\frac{36}{16}}$
6. $x^{\frac{1}{2}} \cdot x^{\frac{9}{2}}$	x^5	$x^{\frac{10}{4}}$
7. $t^2 \cdot t^7 \cdot t^{11}$	t^{154}	t^{20}
8. $\sqrt{5x}$	$(5x)^{\frac{1}{2}}$	$5x^{\frac{1}{2}}$
9. $\frac{x^{-2}}{x^{-5}}$	$\frac{1}{x^3}$	x^3
10. $2^x = 8$	$x = 4$	$x = 3$

The Rules

① $x^a \cdot x^b = x^{a+b}$

② $(x^a)^b = x^{ab}$

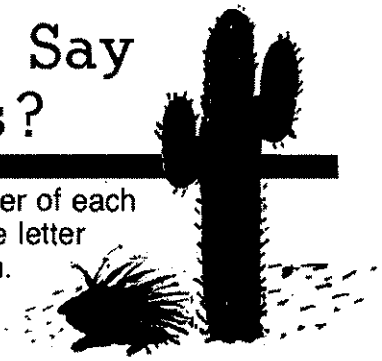
③ $\frac{x^a}{x^b} = x^{a-b}$

④ $x^0 = 1$

⑤ $x^{-a} = \frac{1}{x^a}$

⑥ $\frac{1}{x^b} = x^{-b}$

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

CAN'T HAVE SAME "X" VALUE TO BE A FUNCTION

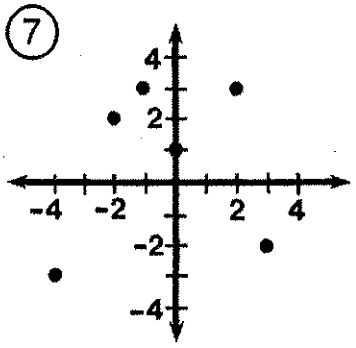
(5)

x	y
−5	8
−3	8
−1	−2
1	−2
3	11
5	23

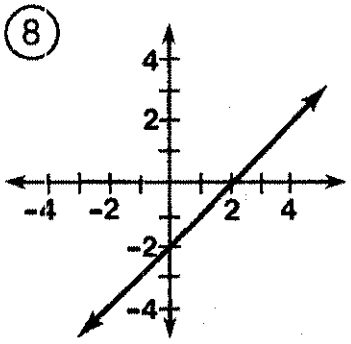
(6)

x	y
−2	−7
−2	5
0	−16
2	0
2	6

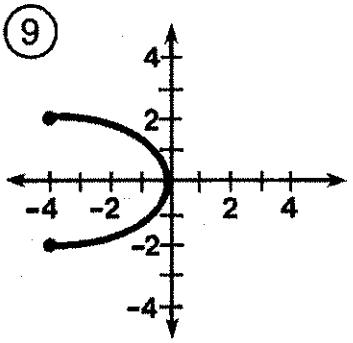
(7)



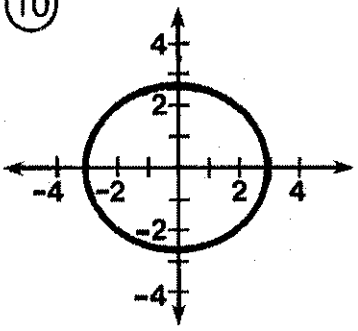
(8)



(9)



(10)



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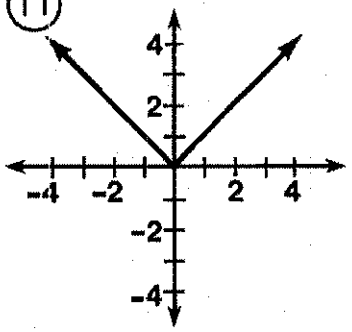
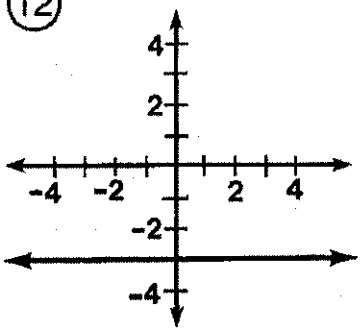


(12)



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