

**Review Worksheet #12**Section 1 - Multiple Choice

1) What is the next number in the following sequence?

256, 225, 196, 169, ?

- (a) 100
- (b) 110
- (c) 111
- (d) 144

2) In the equation,  $3c + 5 = d$ , when  $c$  is replaced by 2,  $d$  must be replaced by what number?

- (a) 2
- (b) 6
- (c) 11
- (d) 35

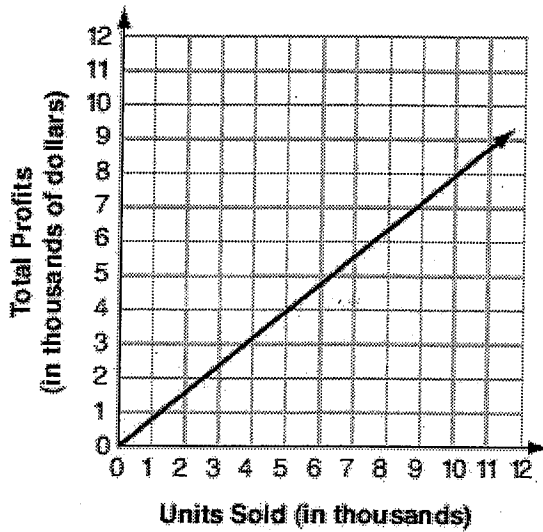
3) Mr. Huong rented an economy car from Cars-a-Go-Go. They rent economy cars for \$35 for the first day and an additional fee for each additional day as shown in the table. All prices include tax. If Mr. Huong's bill was \$167, how many days did he rent the car?

**Cars-a-Go-Go**

First Day Rental: \$35	
Number of Additional Days	Total Additional Charge
1	\$22
2	\$44
3	\$66
4	\$88

- (a) 5
- (b) 6
- (c) 7
- (d) 8

4) How much profit will be generated from the sale of 20,000 units?



- (a) \$10,000
- (b) \$15,000
- (c) \$16,000
- (d) \$150,000

5) Describe the relationship between  $x$  and  $y$  in the data represented in the chart.

$x$	-6	-3	0	3	6
$y$	9	7	5	3	1

- (a)  $y$  increases as  $x$  increases
- (b)  $y$  decreases as  $x$  increases
- (c)  $x$  has no bearing on  $y$
- (d) as  $x$  increases at a steady rate,  $y$  increases at twice the rate.

6) Based on the data in the chart below, predict what happens to  $y$  as

$x$   
increases.

$x$	1	2	3	4	5
$y$	2	0	-2	-4	-6

- (a) increases
- (b) increases slowly
- (c) decreases
- (d) does not change

7) What is the rule shown by the pattern in the table?

In	Out
6	23
7	26
8	29
9	32

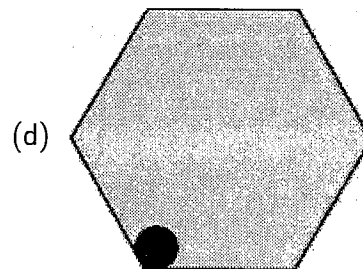
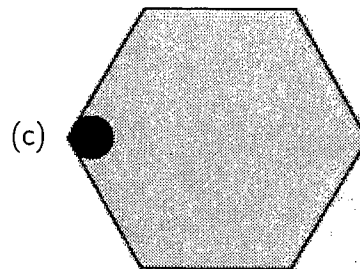
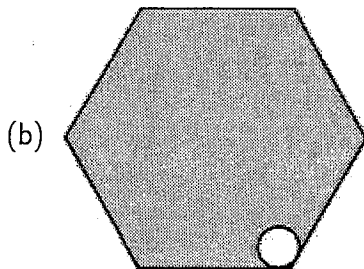
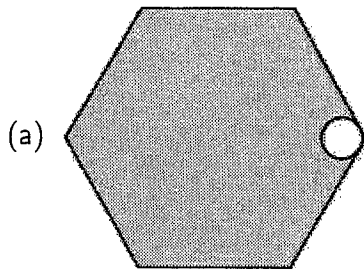
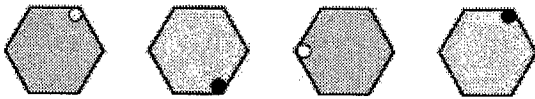
- (a)  $3x + 2$
- (b)  $3x + 5$
- (c)  $3x - 2$
- (d)  $3x - 5$

8) Based on the table, what are the missing numbers?

$x$	1	2	3	4	5
$y$	1.5	4.5		10.5	

- (a) 7.5 and 17.5
- (b) 8 and 13
- (c) 7.5 and 13.5
- (d) 7.25 and 13.5

9) Which object comes next in this sequence?



10) At Stevenson High School, 50 students are taking German. This number has been increasing at a rate of 2 students per year. The number of students taking French is 118 and has been decreasing at a rate of 4 students per year. When will the number of students taking German be greater than the number taking French?

- (a) year 10
- (b) year 13
- (c) year 15
- (d) year 17

11) Jerry is 3 years older than Don. The sum of their ages is less than 43. What is the oldest Jerry could be?

- (a) 19
- (b) 20
- (c) 22
- (d) 23

12) You and your best friend have decided to rent some scooters. The cost for renting a scooter is \$7.00 for the first hour and \$3.00 for each additional half hour. Find the cost of renting one scooter for  $5\frac{1}{2}$  hours.

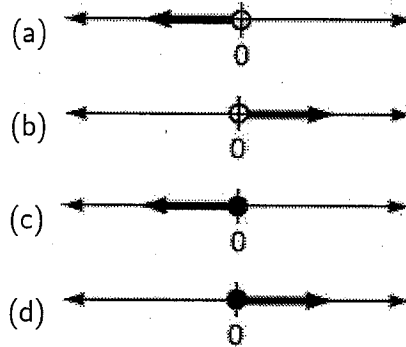
- (a) \$17.00
- (b) \$34.00
- (c) \$40.00
- (d) \$68.00

13) Given the following table, what is the missing value?

$x$	-2	-1	0	1	2	3
$3x - 5$	-11	-8	?	-2	1	4

- (a) -5
- (b) -2
- (c) 5
- (d) 8

14) Which of the following is a graph of the inequality  $x > 0$ ?



15) Given the function  $y = 5x - 3$ , if the value for  $x$  is  $-2$ , what is the value for  $y$ ?

- (a) -13
- (b) -4
- (c) 0
- (d) 7

16) If the pattern continues, find the missing number that is paired with  $x$  when  $x$  equals 5.

$x$	0	1	2	3
$y$	-9	-5	-1	3

- (a) 7
- (b) 9
- (c) 11
- (d) 13

17) If the pattern continues, find the missing number that is paired when  $x$  equals 5.

$x$	0	1	2	3
$y$	-3	-1	1	3

- (a) 7
- (b) 9
- (c) 11
- (d) 13

18) The Owens family went to the lake for vacation. They have the option to rent a boat. Boat rentals are charged by the half-hour, as shown in the chart below. Which statement about the boat rentals is true?

**Boat Rentals**

Half-hour Increments	Cost
1	\$25.00
2	\$35.00
3	\$45.00
4	\$55.00

- (a) The relationship between time and money is perfectly symmetric.
- (b) It is a better deal to rent the boat for 30 minutes than  $2\frac{1}{2}$  hours.
- (c) After the first 30 minutes, the cost is at a constant increase.
- (d) Since the Owens family has 5 family members, they will have to pay \$65.

19) Find the missing number if the pattern continues.

$x$	$y$
1	$\frac{1}{2}$
2	1
3	?
4	2

- (a)  $1\frac{1}{2}$
- (b)  $2\frac{1}{2}$
- (c) 3
- (d)  $3\frac{1}{2}$

20) Given the function  $y = 4x - 10$ , if the value for  $y$  is  $-2$ , what is the value for  $x$  ?

- (a)  $-18$
- (b)  $-2$
- (c) 2
- (d) 3