

Name _____

Date _____

Mrs. Henderson – Math 8

Homework Worksheet #23**Complete all questions (show all work). Homework CHECKED on Friday!!****Monday: HW #23A**

Solve.

1) a) $(-9)^{-2}$ _____ b) $(-4)^2$ _____ c) $6^{-2} \cdot 6^2$ _____

2) a) $a^{-4} \cdot a^4$ _____ b) $\frac{w^4}{w^{-6}}$ _____ c) w^0 _____

- 3) The moon is
- 4×10^3
- miles in diameter Saturn is
- 8×10^5
- miles in diameter. How do the diameters compare in size?

A. Saturn is twice as large as the moon.

B. The moon is $\frac{1}{50}$ the size of Saturn.C. The moon is $\frac{1}{200}$ the size of Saturn.**Tuesday: HW #23B**

4) Solve. $\frac{3}{4}(8x + 12) + 3x = 5x - 8$

5) Solve. $5(2x - 4) = 10x + 6$

Find the solution to the system of equations algebraically:

6.) $4x - y = 0$

$x + y = 5$

7.) $-4x + y = -1$

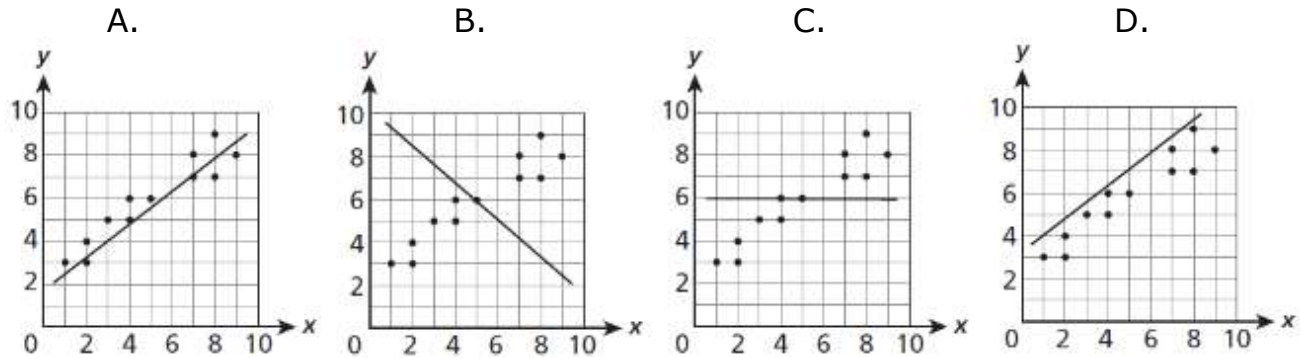
$-4x + 2y = -10$

8.) $x + y = 11$

$-x + y = 1$

Wednesday: HW #23C

9) Which line represents the best fit for the scatter plot data?



10) At any given time, Saturn was 9.1×10^8 miles from the sun and Earth was 9.3×10^7 miles from the sun. By what distance is one planet closer to the sun than the other planet?

- A) 2×10^1 B) 2×10^{15} C) 8.17×10^7 D) 8.17×10^8

Thursday: HW #23D

11) Solve. $4(x + 7) = 4x - 10$

12) The table shown below shows the cost, as a linear function, of the cost for different numbers of goldfish. Which statement describes the rate of change of this function?

COST OF GOLDFISH

Number of Goldfish	Cost
5	\$1.50
10	\$3.00
15	\$4.50
20	\$6.00

- a) The cost increases \$0.30 each time 1 goldfish is added
 b) The cost increases \$1.50 each time 1 goldfish is added
 c) The cost increases \$3.00 each time 5 goldfish are added
 d) The cost increases \$6.00 each time 5 goldfish are added

13) Which table represents a relationship that is not a function?

Q

x	y
-2	-3
1	3
3	-3
5	3

R

x	y
-1	-5
2	4
3	7
4	10

S

x	y
-2	3
1	3
3	3
5	3

T

x	y
3	4
4	5
3	-4
4	-5