

Due: \_\_\_\_\_

**Honors Algebra 2**  
**Chapter 2 Workshhet**

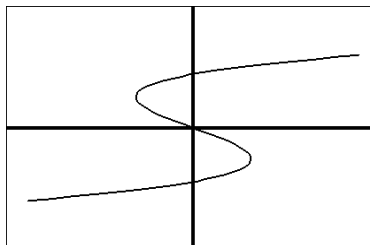
Show work. No Calculator.

Name: \_\_\_\_\_

1. State the domain and the range. Is the relation a function? Why or why not.

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

2. Is the relation graphed a function?  
Why or why not?



3. If  $f(x) = 5x^2 - 8x$ , find  $f(-2)$ .

**Graph each equation or inequality on grids.**

4.  $y = -x + 5$

5.  $y = 3x + 2$

6.  $y = \lfloor x + 1 \rfloor$

7.  $y = |x - 3|$

8.  $y = \begin{cases} -\frac{1}{2}x - 3, & x \leq 0 \\ x + 2, & x > 0 \end{cases}$

9.  $-2x + 1 \leq y$

10. State the domain and range for problem 7.

11. Is  $y = x(x + 3)$  linear or not linear? Why or why not.

12. Write  $y = \frac{5}{8}x - 2$  in standard form.

13. Determine the slope of the line passing through (5,9) and (3,1).

14. Determine the slope of the line passing through (-2,4) and (-2,-7)

15. Find the  $x$ - and  $y$ - intercept for the line  $-2x = 20 + 5y$ .

**Find a linear equation for each graph described.**

16. slope = 2, pass through (1,5)

17. passes through (-1,-5) and (3,2)

18.  $x$ -intercept = -3 and  $y$ -intercept = 6.

19. slope =  $-1/2$ ,  $x$ -intercept = 4

20. passes through (2,5) and is perpendicular to a line whose equation is  $y - 7x = 4$

21. passes through (1,4) and is parallel to the line whose equation is  $y - 7x = 4$

**Use the information in the table to solve the following problems.**

**We will do in class together.**

The table shows the relationship between the field goals attempted and points scored by one basketball player over a six game period.

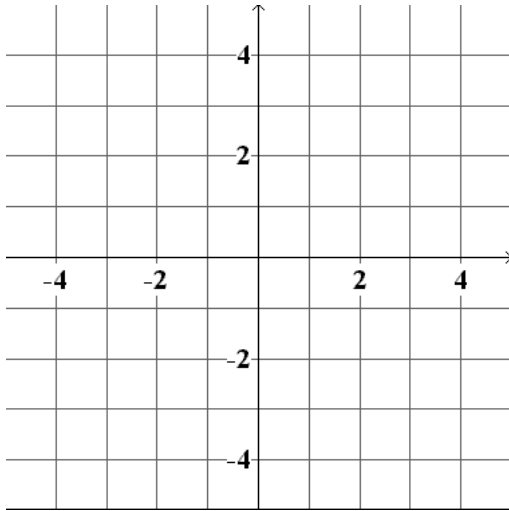
|                           |    |   |    |    |    |    |
|---------------------------|----|---|----|----|----|----|
| field goals attempted (x) | 8  | 6 | 10 | 9  | 7  | 10 |
| points scored (y)         | 12 | 9 | 14 | 14 | 11 | 15 |

22. Using your calculator, find a prediction equation (model) to show how the points scored are related to the field goals attempted. Do not round the decimals.

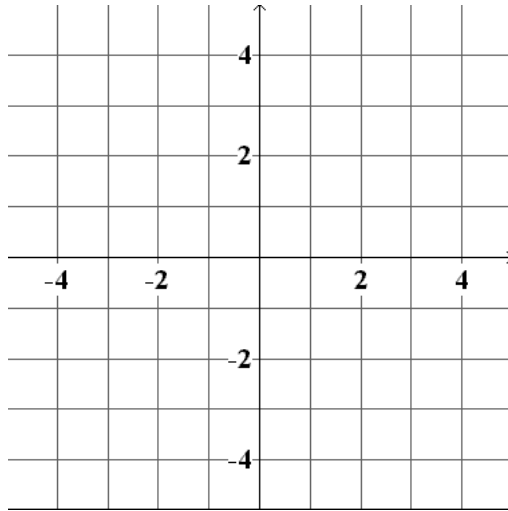
23. Using your model, predict the points scored if 20 field goals are attempted. (Round using the greatest integer concept)

24. According to your model, how many points are being scored per field goal attempt?

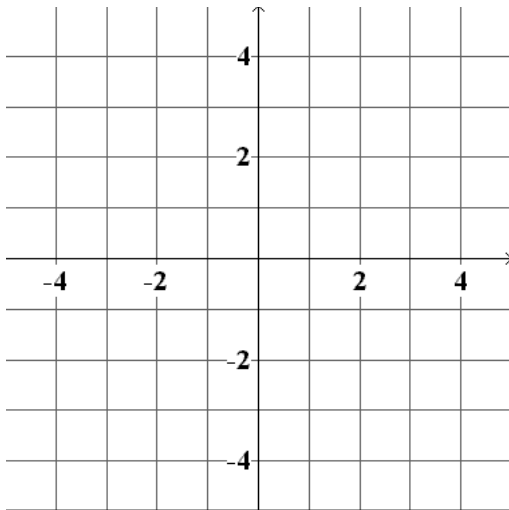
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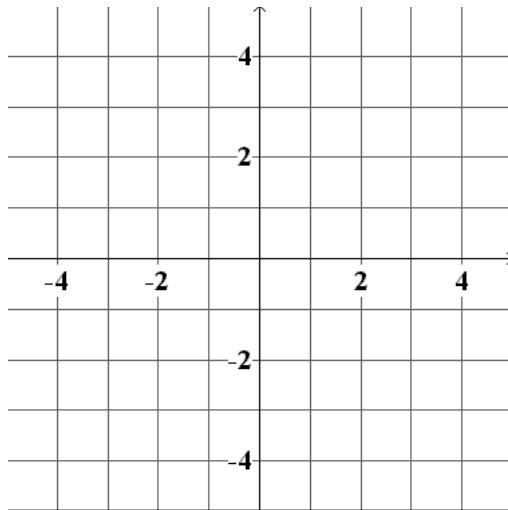
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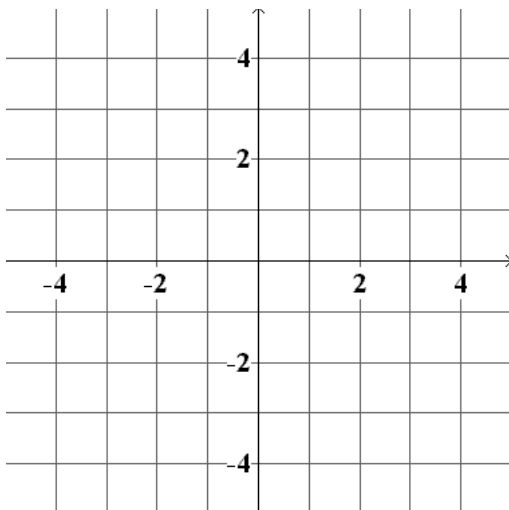
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8.



6.



9.

