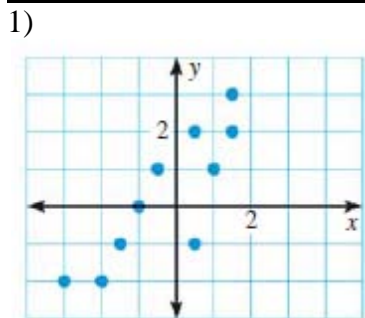
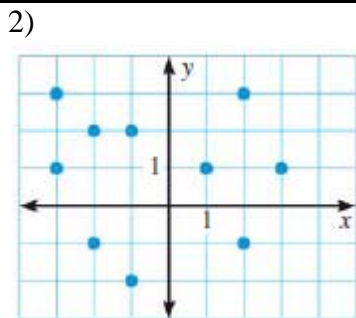


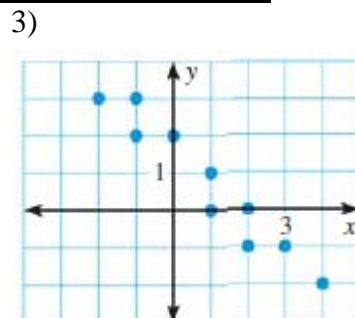
**Tell whether these graphs show a positive, negative, or no correlation. Then explain why.**



Type: \_\_\_\_\_  
 Why? \_\_\_\_\_

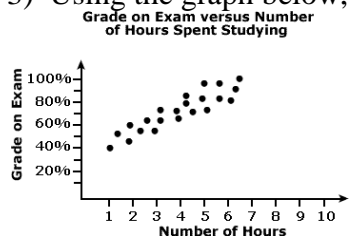


Type: \_\_\_\_\_  
 Why? \_\_\_\_\_



Type: \_\_\_\_\_  
 Why? \_\_\_\_\_

3) Using the graph below, circle the appropriate word(s):



The more or fewer hours a student spends studying, the higher or lower they will score on the exam.

**Make a scatter plot of the data in the table. Then answer the questions.**

4) The table shows the body length and wingspan (both in inches) of seven undetermined birds.

Body length	12	16	18	19	23	9	5
Wingspan	18	41	43	51	63	22	7



- Plot these points on the graph above. Label the  $x$  and  $y$  axis. Indicate the scale on each axis.
- Identify the independent variable. \_\_\_\_\_
- Identify the dependent variable. \_\_\_\_\_
- What type of correlation does this data have? \_\_\_\_\_
- What does the correlation mean with the body length and wingspan? \_\_\_\_\_
- Draw a trend-line, if possible.
- Plug this into your calculator. What is the equation of best-fit line? \_\_\_\_\_

**Tell whether the ordered pair is a solution of the given inequality. Circle your answer.**

- |                         |                          |                          |                             |                                  |
|-------------------------|--------------------------|--------------------------|-----------------------------|----------------------------------|
| 5) $y < x + 2$<br>(3,4) | 6) $y > 2x - 3$<br>(4,2) | 7) $y \geq -x$<br>(2,-1) | 8) $-3x - 4y < 12$<br>(1,2) | 9) $-2x + y \leq -5$<br>(-3,-12) |
| YES NO                  | YES NO                   | YES NO                   | YES NO                      | YES NO                           |

**Solve the inequality using inequalities AND Interval Notation. Graph your solution on a number line.**

10)  $x + 5 > -13$



Inequality: \_\_\_\_\_ Int. Not: \_\_\_\_\_

11)  $\frac{1}{2}x + 12 \leq 10$



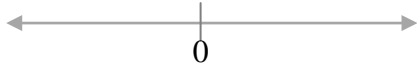
Inequality: \_\_\_\_\_ Int. Not: \_\_\_\_\_

12)  $1 - 3x \leq -14 + 2x$



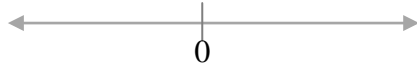
Inequality: \_\_\_\_\_ Int. Not: \_\_\_\_\_

13)  $-3(2x - 1) \geq 1 - 8x$



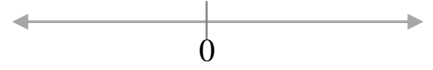
Inequality: \_\_\_\_\_ Int. Not: \_\_\_\_\_

14)  $3(x + 1) < 3x + 7$



Inequality: \_\_\_\_\_ Int. Not: \_\_\_\_\_

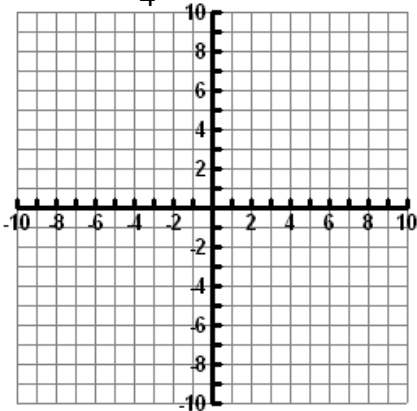
15)  $8(x - 1) > -8 + 8x$



Inequality: \_\_\_\_\_ Int. Not: \_\_\_\_\_

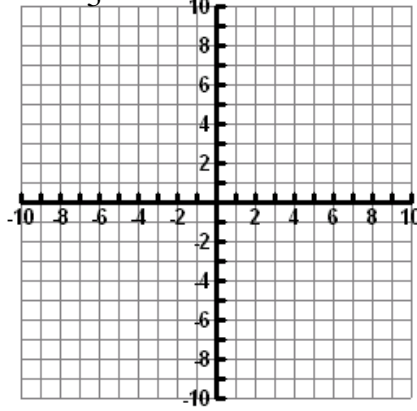
**Graph the following inequalities and circle any solutions.**

16)  $y \geq -\frac{1}{4}x + 5$



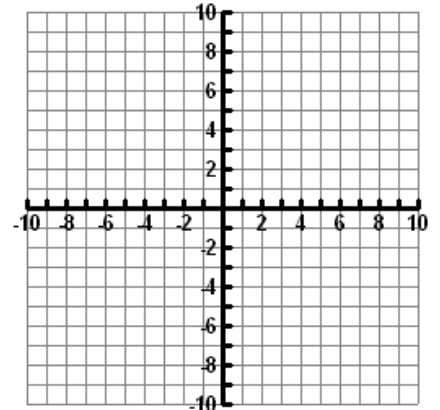
(8, 3) (6, 5) (9, -2)

17)  $y < \frac{2}{3}x - 8$



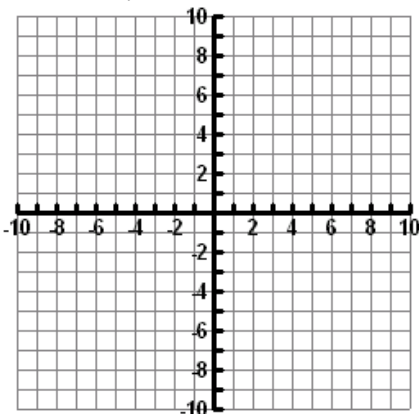
(3, -4) (3, -6) (5, -8)

18)  $y > -4$



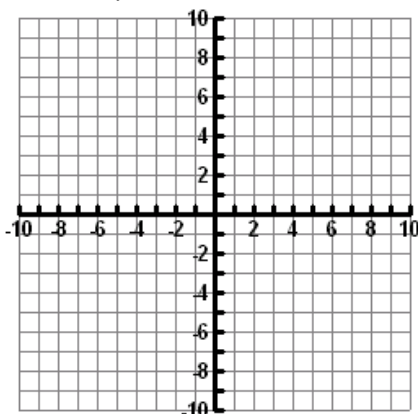
(-3, -5) (4, -3) (-2, -4)

19)  $2x - 4y \geq 8$



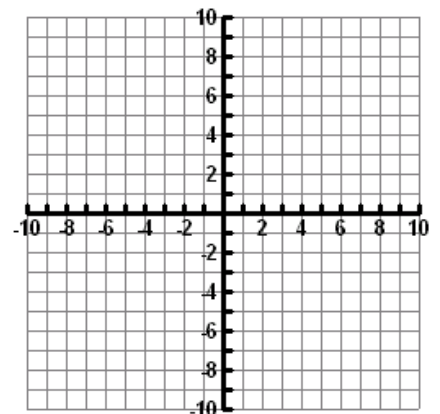
(1, -1) (-6, -5) (2, -3)

20)  $x + 2y \leq 4$



(2, 1) (-3, 2) (-1, 4)

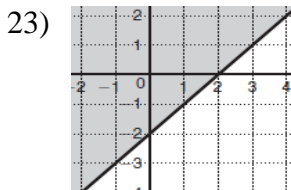
21)  $x < -3$



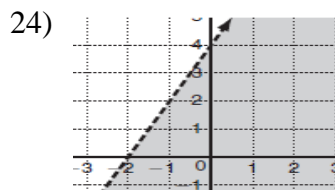
(-5, 2) (-3, -1) (-1, -4)

22) Melissa works on commission at a dress shop in the mall. She earns a weekly base salary of \$275 plus a commission of 18% on her sales. Write an inequality that describes  $s$ , the amount of sales Melissa needs to have in order to earn a minimum of \$500 a week?

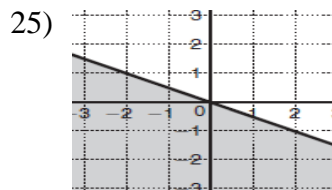
**Write, in inequality form, to represent each of the following graphs.**



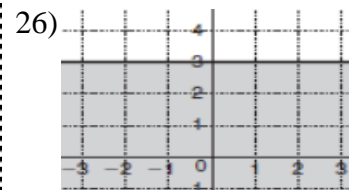
Ineq: \_\_\_\_\_



Ineq: \_\_\_\_\_



Ineq: \_\_\_\_\_



Ineq: \_\_\_\_\_