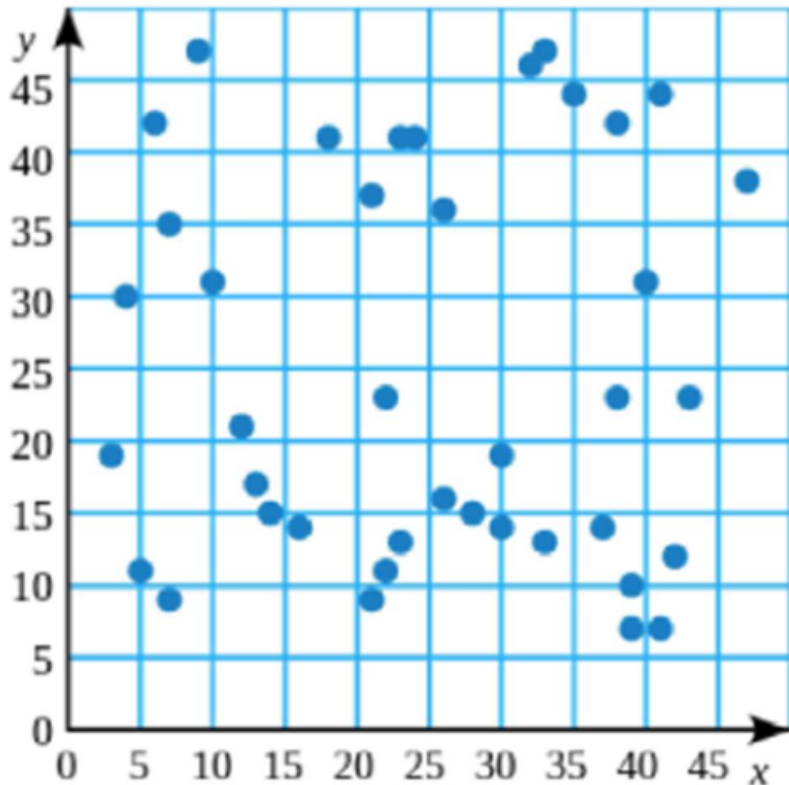# Pre-Algebra – Study Sheet for Test
Chapter 4 Section 5-6 – 7th Grade

Name:_____ Date:_____ Hour:_____

Instructions: Complete the following problems.

1. Describe the relationship between the data in the scatter plot.

     a.   Positive linear

     b.   Negative linear

     c.   Nonlinear

     d.   No relationship

2. Fill in the blanks.

The table shows the number of hours spent studying and the test scores for several students. An equation of the line of fit through $(1, 62)$ and $(9, 98)$ is $y = 4.5x + 57.5$. Interpret the slope and the y-intercept.

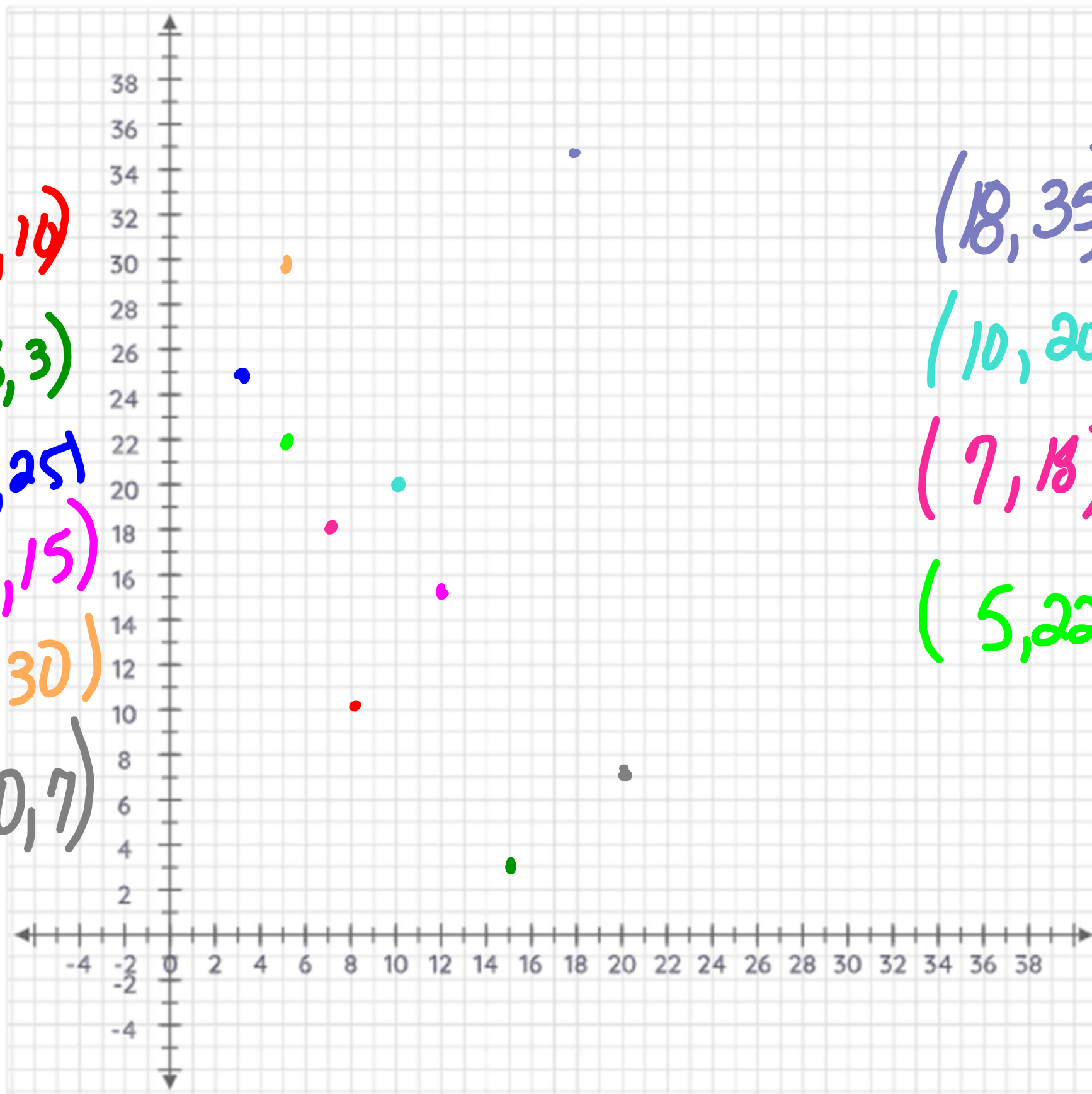| Hours, x	9	3	2	8	6	1	8	5	4	7
Test Score, y	98	85	70	92	79	62	88	85	80	96

The slope is _+45_ and the y-intercept is _+575_. So, a student who studies 0 hours _Increasing_ is expected to earn a _575_ on the test, and the score increases by about _45_ points per hour spent studying.

3. Make a scatter plot for the data.

x	8	15	20	3	12	5	18	10	7	5
y	10	3	7	25	15	30	35	20	18	22

(8,10)

(15,3)

(3,25)

(12,15)

(5,30)

(20,7)

(18,35)

(10,20)

(7,18)

(5,22)

4.   Complete the following.

Part A Draw a line of fit using $(40, 40)$ and $(10, 10)$.

x	35	5	30	40	40	30	40	15	10	15
y	30	0	30	45	35	35	40	15	10	20
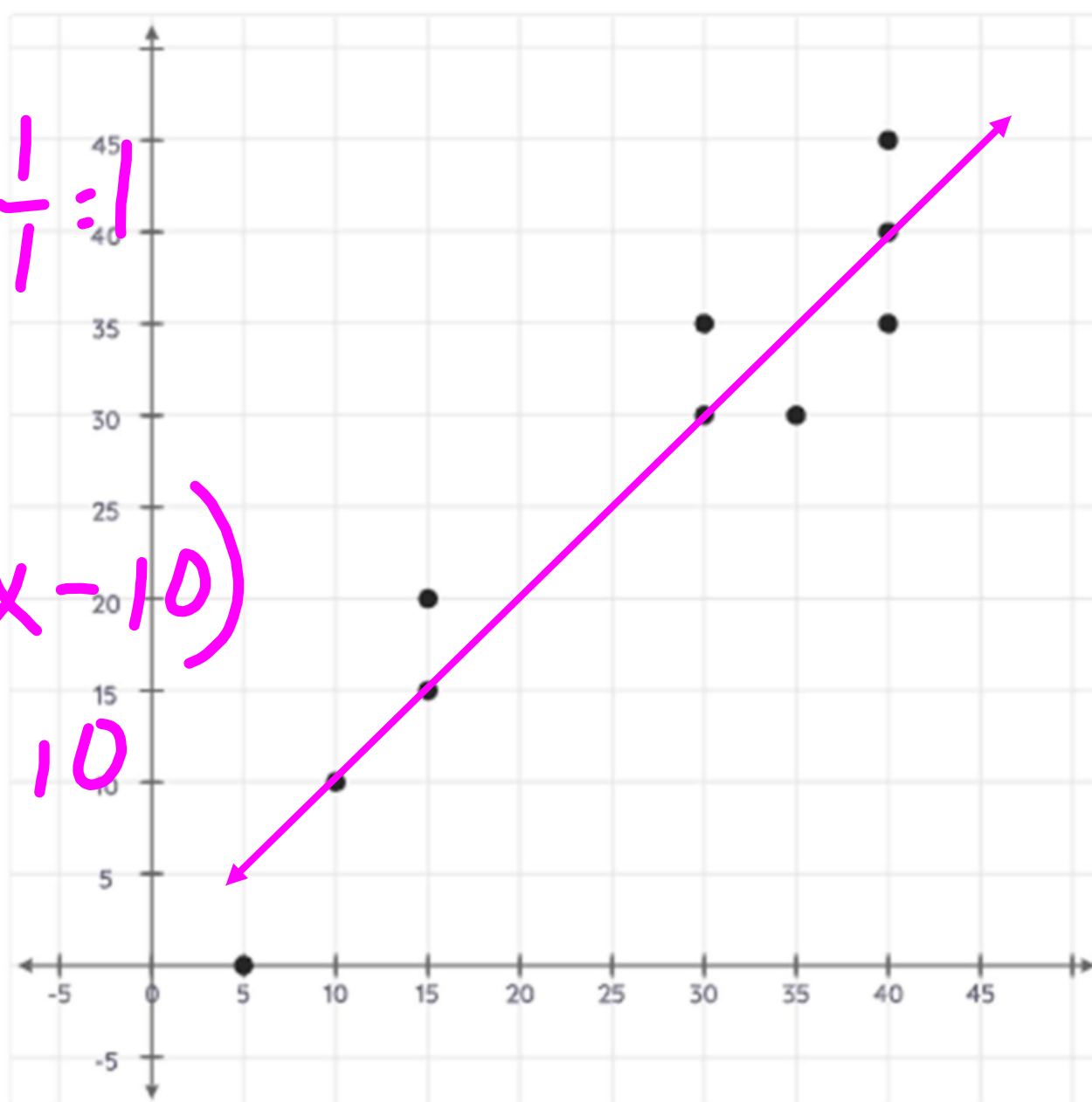
$$m = \frac{10-40}{10-40} = \frac{1}{1} = 1$$

$$y - 10 = 1(x - 10)$$

$$y - 10 = x - 10$$

$$y = x$$

Part B An equation of the line of fit is $y =$ _____ .