

NAME: \_\_\_\_\_

## UNIT 4 • DESCRIBING DATA

### Lesson 3: Interpreting Linear Models

#### Practice 4.3.1: Interpreting Slope and $y$ -intercept

A town tracks the number of new homes being built over 10 years. The data is in the table below. Use the table for problems 1–3.

Year	New homes
1	130
2	233
3	340
4	340
5	709
6	642
7	809
8	1,011
9	1,324
10	1,511

1. Create a scatter plot of the data set.
2. Find the equation of a line that fits the data.
3. Interpret the slope and  $y$ -intercept of the equation in context.

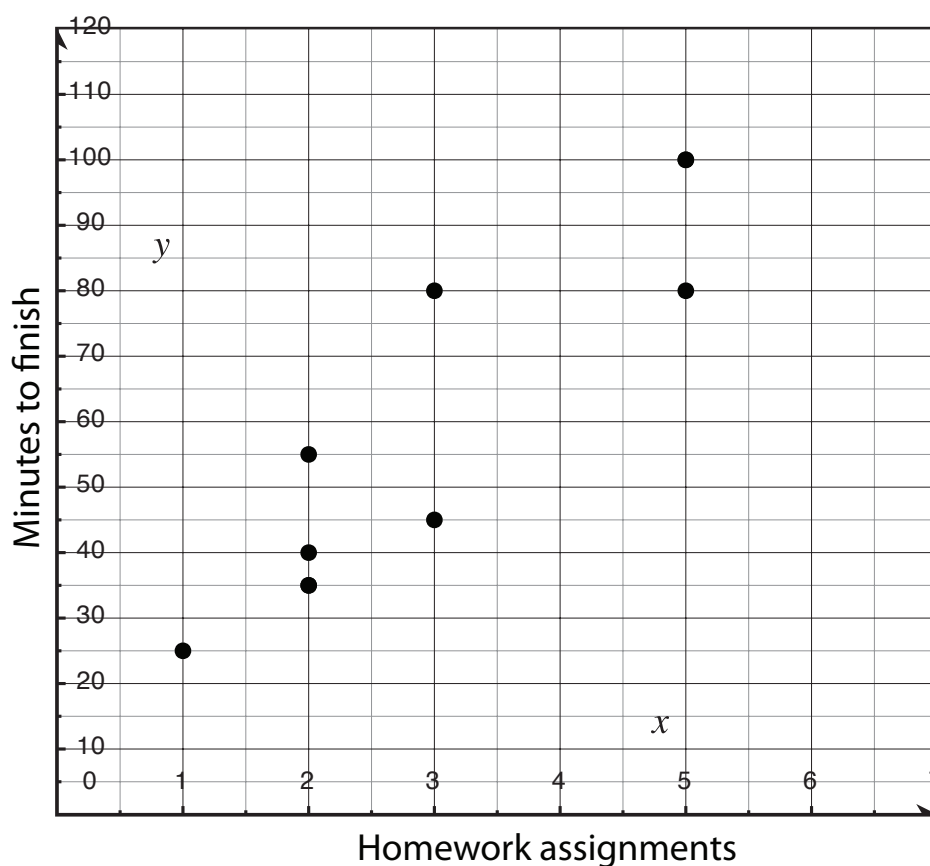
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Madeline records the number of homework assignments she has and the total time it takes her to complete her homework. Her data is in the scatter plot below. Use the scatter plot for problems 4 and 5.



- Find the equation of a line that fits the data.
- Interpret the slope and  $y$ -intercept of the equation in context.

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Will practices his basketball free throws. He records the number of free throws he attempts and the number of free throws he makes in the table below. Use the table for problems 6–8.

Free throws attempted	Free throws made
11	8
27	20
15	9
11	7
30	25
12	10
27	17
17	15
22	15
27	21

6. Create a scatter plot of the data set.
7. Find the equation of a line that fits the data.
8. Interpret the slope and  $y$ -intercept of the equation in context.

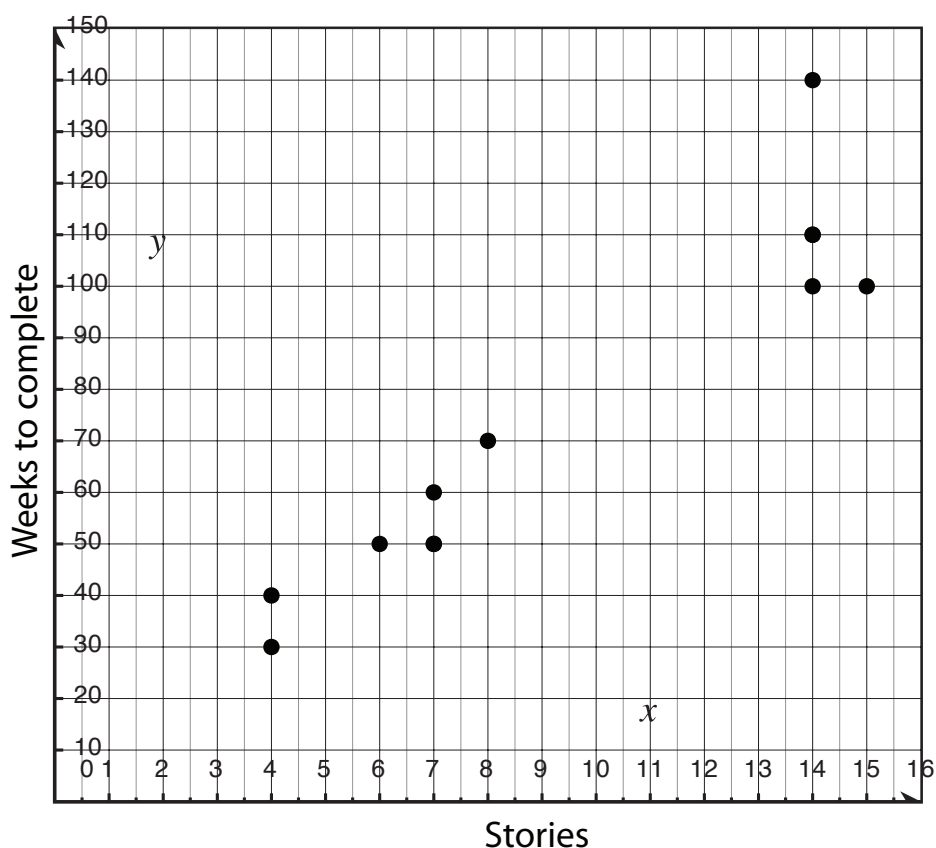
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A construction company records the number of stories of each building it constructs and the amount of weeks it takes to construct the building. The results are in the scatter plot below. Use the scatter plot for problems 9 and 10.



9. Find the equation of a line that fits the data.

10. Interpret the slope and  $y$ -intercept of the equation in context.