

Applied Technical Math 9/26

**Warm Up
Practice
AIMS Web**

1.1 The Shape of a Linear Equation

I can construct a graph and trend line given a table of ordered pairs

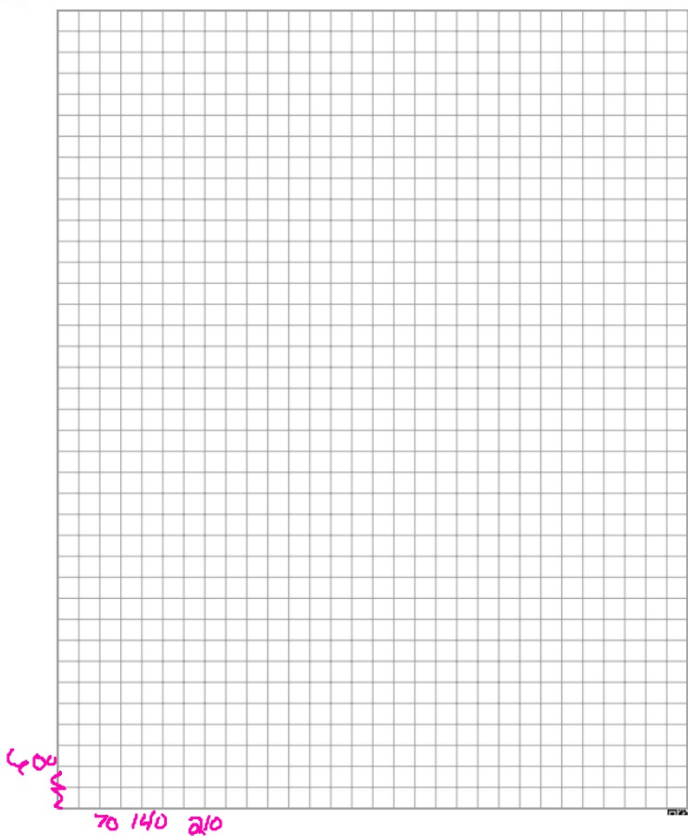
Ex. 1

- The Kilowatt-hours (KWH) of electricity a home uses each month are dramatically affected by the temperature difference inside versus outside measured in heating degree days (HDD), (if it is 60 degrees outside and you heat your house to 72 degrees for 5 days that is $12 \times 5 = 60$ degree days).
 - Make a graph of the data (use graph paper, label completely, and choose the correct axis for the independent(x) and dependent(y) variables).
 - Find the slope between the 133 and 561 degree days, accurate to 2 decimal places.
 - Add a trend line to the graph.
 - Choose two representative points from your trend line and find the slope. Explain the meaning of the slope in context.

Heating Degree Days (HDD)	KWH Used
714	1799
469	1269
386	1160
266	860
133	804
62	696
7	677
5	666
87	736
354	1071
561	1602
968	2060

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A. and C.

KWH USED



Heating Degree Day

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x_1, y_1 x_2, y_2
B. (133, 804) and (561, 1602)

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{1602 - 804}{561 - 133} = \frac{798}{428}$$
$$\approx 1.864$$
$$\approx \underline{1.86}$$

D.

For every 1 degree the
KWH used goes up
by 1.86

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I can construct a graph and trend line given a table of ordered pairs

Hmwk

Reading Questions

Intro and 1.1

Pg 10 #2-4