Roma had guests for dinner at her house eight times and has recorded the number of guests and the total cost for each meal in the table.

Guests	3	4	4	6	6	7	8	8
Cost (\$)	30	65	88	90	115	160	150	162

(4) Cost depends of # of guests attending (x)

	() case acquire of 4 of guest, account (1)
Step 1	Use your calculator to create a scatter plot of the data
	Sketch below. Label your axes
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	140-
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Name:	
	\(\int_{\text{\tin}\text{\te}\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\text{\text{\text{\tin}\text{\text{\text{\text{\text{\text{\texitt{\text{\text{\text{\texi}\text{\text{\texi}\text{\text{\text{\text{\text{\texi}\text{\text{\texi}\text{\texit{\text{\texi}\tinz{\texi{\texi{\texi}\tint{\text{\texi}\text{\text{\texi}\tit
	U 80 -
	Zo- ·
	1040
	207
	2345678
	# of Guests
Step 2	Describe the correlation of the data.
	positive correlation - as the # of guests increases, the total cost increases.
Name:	increases, the total cost increases.
,	, , , , , , , , , , , , , , , , , , , ,
Step 3	Use your calculator to find a linear model for the data.
	$y = 23.6 \times -28.5$
	$\int \alpha \int d\alpha = \alpha \int d\alpha$
Name:	
Step 4	Based on the model, predict the cost of dinner for 11 guests.
	9 = 23.6(11) - 28.5
	y=23.6(11) -20,5 (cost ≈ \$231.10)
Name:	4 = 231.1
Name.	
Step 5	Based on the model, predict the number of guests Roma could serve
. . •	for \$200.
	$200 = 23.6 \times -28.5$
	+28,5 +28,5 / about 9 guests
Name:	20 = 23.6 x - 28.5 +28.5 +28.5 228.5 = 23.6 x x 2 9,68 [about 9 guests]
	23.6 23.6

The table below shoes the dosage of a particular medicine as related to a person's weight.

Weight (lb)	90	100	110	125	140	155	170	180	200
Dosage (mg)	20	25	30	35	40	53	60	66	75

(my) dosage depends on weight (my)

Name: $y = 0.5(240) - 26.8$ $y = 93.2$ [about 93 mg]		(by) dos age depends on weight (ty)
Name:	Step 1	Use your calculator to create a scatter plot of the data
Name: Name: Step 2 Describe the correlation of the data. yeartive correlation — as the weight (1b) Name: Use your calculator to find a linear model for the data. $y = 0.5 \times 40.8$ Name: Step 4 Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 40.8$ Name: $y = 0.5 \times 40.8$ Name: $y = 0.5 \times 40.8$ Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 40.8$ Name: $y = 0.5 \times 40.8$ Name: $y = 0.5 \times 40.8$ $y = 0.5 \times 40.8$ $y = 0.5 \times 40.8$ Name:		Sketch below. Label your axes
Name: Step 2 Describe the correlation of the data. positive correlation — as the weight Name: Use your calculator to find a linear model for the data. $y = 0.5 \times 4.8$ Name: Step 4 Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 4.8$ Name: $y = 0.5 \times 4.8$ Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 4.8$ Name: $y = 0.5 \times 4.8$ Describe the correlation of the data. $y = 0.5 \times 4.8$ $y = 0.5 \times 4.8$ Name: $y = 0.5 \times 4.8$		$q h^{\frac{1}{2}}$
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Name:		
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Step 2 Describe the correlation of the data. Name:		
Step 2 Describe the correlation of the data. Name:		300
Step 2 Describe the correlation of the data. Provided (1b) Describe the correlation — as the weight worknesses, the dosage increases. Step 3 Use your calculator to find a linear model for the data. $y = 0.5 \times 4 $		Öp-
Step 2 Describe the correlation of the data. upositive correlation — as the weight wareases, the dosage increases. Step 3 Use your calculator to find a linear model for the data. $y = 0.5 \times 4.8$ Name: Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 4.8$ Name: $y = 0.5 \times 4.8$ Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 4.8$ Name: $y = 0.5 \times 4.8$	w.	
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Name: positive conelation - as the weight uncreases, the dosage increases. Step 3 Use your calculator to find a linear model for the data. $y = 0.5 \times 26.8$ Name: Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 26.8$ Name: Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 26.8$ Name: Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 26.8$ Name: Based on the model, predict the dosage for a person weighing 240 pounds		
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Step 3 Use your calculator to find a linear model for the data. $y = 0.5 \times 4.8$ Name: Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times 4.8$ Name: $y = 0.5 \times 4.8$ $y = 0.5 \times 4.8$ $y = 0.5 \times 4.8$ Name: $y = 0.5 \times 4.8$		upositive correlation - as the weight
Name: $y = 0.5 \times = 26.8$ $y = 0.5 \times = 26.8$ Step 4 Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 \times = 26.8$ $y = 0.5 \times = 26.8$ $y = 0.5 \times = 26.8$ Name: $y = 0.5 \times = 26.8$	Name:	imcreases, the dosage increases.
Name: $y = 0.5x - 26.8$ Step 4 Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5(240) - 26.8$ Name: $y = 93.2$	Step 3	Use your calculator to find a linear model for the data.
Name: $y = 0.5x - 26.8$ Step 4 Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5(240) - 26.8$ Name: $y = 93.2$		y = 0.5x € 26.8
Step 4 Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5 (240) - 26.8$ Name: Name:		
Step 4 Based on the model, predict the dosage for a person weighing 240 pounds $y = 0.5(240) - 26.8$ Name: Dout 93 mg	N	y = 0.5x - 26.8
Name: $y = 0.5(240) - 26.8$ $y = 93.2$ [about 93 mg]	Name:	
Name: \ \ \(\) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Step 4	Based on the model, predict the dosage for a person weighing 240 pounds.
Name: \ \ \(\) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		y=0.5(240)-26.8
Name:		u=937 (about 93 mg)
	Name:	. J 1012
Step 5 Based on the model, predict the weight of a person prescribed a dosage of	Step 5	Based on the model, predict the weight of a person prescribed a dosage of
50 mg		50 mg
Name: $50 = 0.5 \times -26.8 + 26.8 $ Wout 154 pounds		50 = 0.5 x - 26.8 \ \ \(\sigma\)
Name:	Name:	The state of the s
Name: $\underline{\underline{n_0.8}} = \underline{0.5} \times \underline{\underline{n_0.5}}$		$\frac{16.8}{0.5} = 0.8 \times $

X=153,6

On Penny's 15th birthday, her grandmother gave her a large jar of quarters. Penny decided to continue to save quarters in the jar. Every few months she counts her quarters and records the results.

Number of months since her 15 th birthday	3	5	8	12	15	19	22	26
Number of quarters	270	275	376	420	602	684	800	830

(y) # of Quarters depends on time (x)

Step 1	Use your calculator to create a scatter plot of the data
	Sketch below. Label your axes
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	100 P
Name:	$\mathbf{L}_{\mathbf{A}}$
Traino.	500
	True-
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	# 1024
	# of months since 15th birthday
Step 2	Describe the correlation of the data
	positive conclation - as the # of months increases, the # of Quartors in the jar
,	Lucias Mathal Quartors in the iar)
Name:	
	also increases.
Step 3	Use your calculator to find a linear model for the data.
	y=27.1x+158.9
Name:	
Stop 4	Based on the model, predict the number of quarters Penny will have on her
Step 4	Based on the model, predict the number of quarters 1 chiny will have on her $y = 27.1(36) + 158.9$
	1 2 2/ months
Name:	Tabout 1135 Quarters
Cton E	
Step 5	Based on the model, predict when Penny will have 1000 quarters. $1000 = 20.1 \times + 158.9$
	About 31 months attri
Name:	$\frac{-158.9}{841.1} = \frac{27.1 \times 231.0}{27.1} \times 231.0$ About 31 months after her 15th birthday
	27.1 27.1 X2 31.0

Anthropologists use known relationships between the height and length of a woman's humerus bone, the bone between the elbow and the shoulder, to estimate a woman's height.

Humerus Length (cm)	35	27	30	33	25	39	27	31
Height (cm)	167	146	154	165	140	180	149	155

length of humerus depends on height (x) / Use your calculator to create a scatter plot of the data Step 1 Sketch below. Label your axes Name: 5 10 15 20 25 30 35 4h Describe the correlation of the data. Step 2 positive correlation - as the length of the humerus bone increases, the height increases. Name: Use your calculator to find a linear model for the data. Step 3 y = 2.8x + 71.97 y = 2.8x + 72Name: __ Based on the model, predict the height of a women with a humerus length of Step 4 y = 2.8(32) + 72About 161.6 cm 4=161.6 Name: Based on the model, predict the humerus length of a 185 cm woman. Step 5 $185 = 2.8 \times +72$ About 40.4 cm Name: ____

40.4 ex