

Unit 6: Statistics

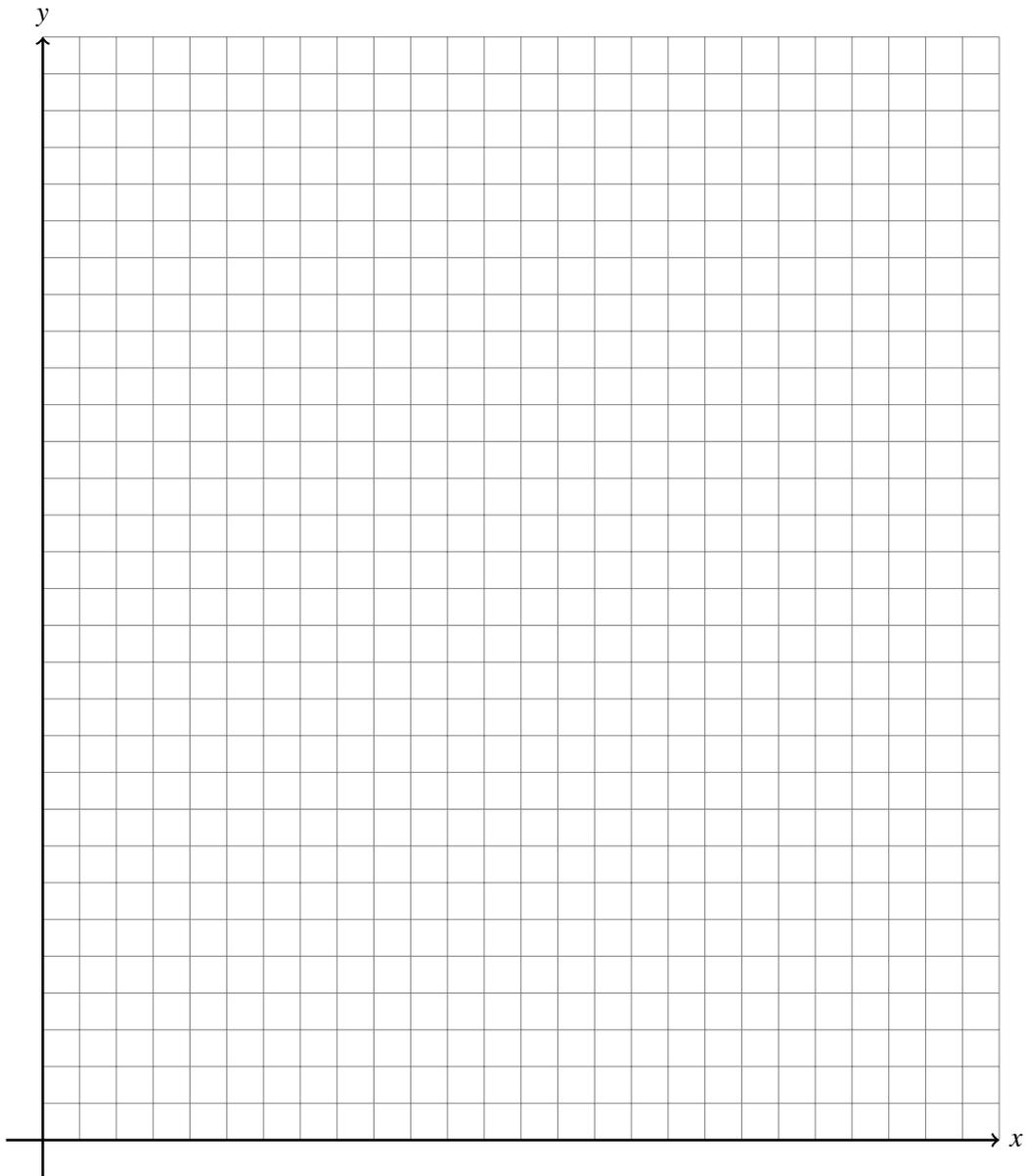


Activity 6.1

The following table shows the amount and weights of catches of oama.

Number of oama caught	Weight of catch (oz)
10	24
15	30
12	23
18	42
22	47
17	34
19	39
25	58
14	26
11	18

Construct a scatter plot of the data in the table on the graph below:



Draw a line of best fit on the graph for the data. Use this line to find how much more oama is needed to increase the weight of a catch by 40 more oz. Explain how you found your answer.

Activity 6.2

The price of fish changes a lot with "supply and demand." For example, in winter, ahi is normally not biting, so they're hard to catch and the *supply* is low. People want to eat more fish during the holiday season so the *demand* is high. So fresh ahi can get really expensive in the winter months. The "grade" or quality of the fish can also affect its price.

Let's assume that for each higher quality grade of fish, the price increased by 10%. Fill out the table below to create an example of how fish prices could depend on grade, with five star (★★★★★) fish being the best, and one star (★) being the worst. Start by choosing a cost for the one star (★) fish and work your way up.

Fish grade	Cost per pound of fish (\$)
★	
★★	
★★★	
★★★★	
★★★★★	

After you have finished filling out the table, determine if prices are changing linearly with grade. Please explain why or why not.

The following fishing spots are all around the island, and we have to consider the quality and cost of each location. Your family decides to take your family's truck to transport everything for the trip, and the truck gets *20 miles per gallon*. The gas price is *\$3.25 per gallon*.

Here's some information about each fishing spot.

Fishing spot	Description	Distance away	Travel cost
1	Far and hardest to get to, but is full of fish and small wildlife. Secluded and very pretty.	76 miles	
2	Far, but has a good amount of fish. Clean and not too crowded.	43 miles	
3	Not too far. The fishing activity is okay. But a little crowded.	22 miles	
4	Closest spot, but doesn't have a lot of fish. Crowded, a little noisy, and a little dirty.	5 miles	

Keep in mind that the travel time will affect your fishing and camping time.

3. Calculate how much it will cost to travel to each of the different fishing locations. Fill out the previous table. Explain how you got your answer.

4. Which meal pack(s) and which fishing spot would you choose? Justify your answer and find the cost of your fishing trip.