

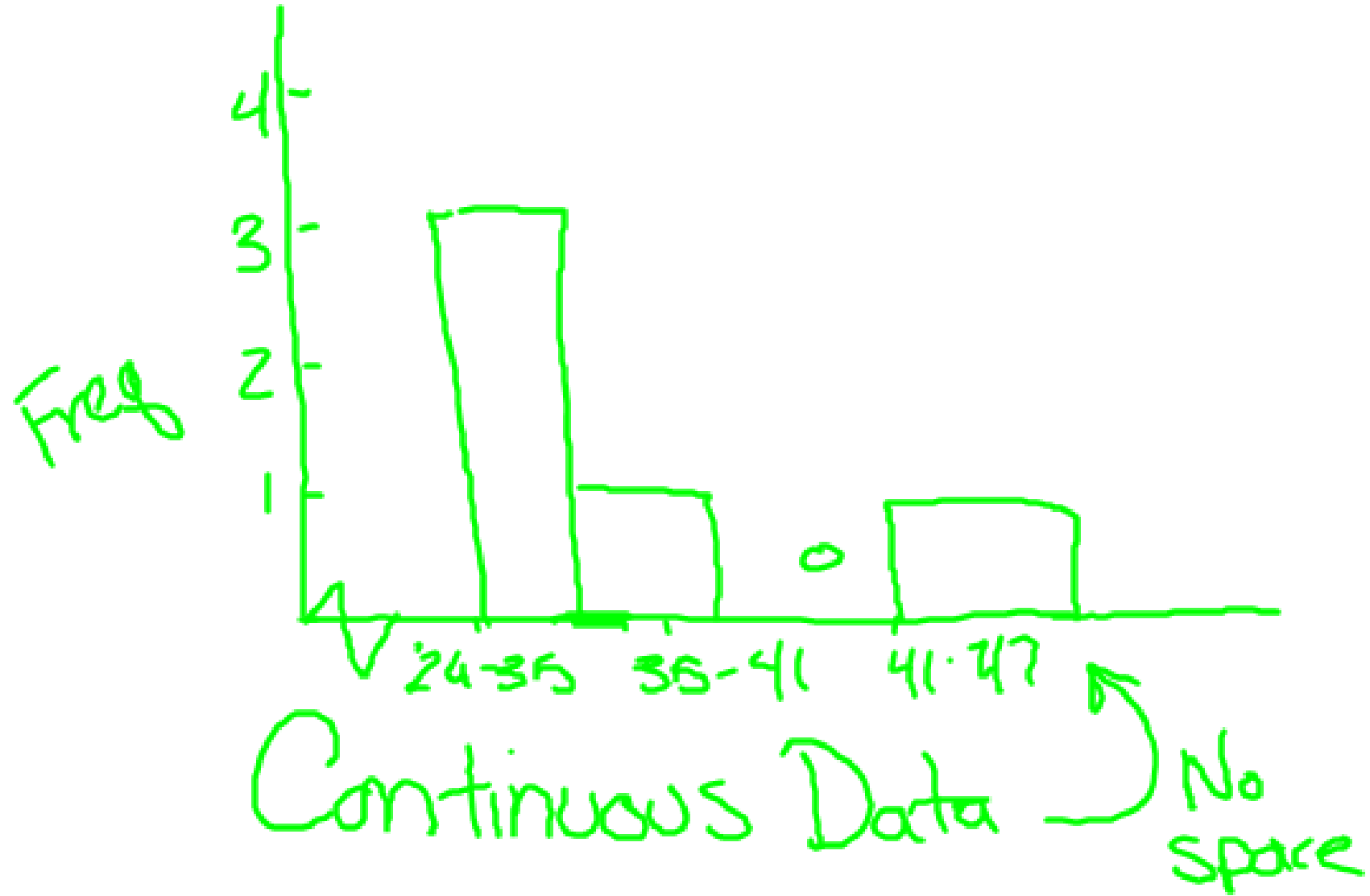
## Histogram Example **Your Turn**

Recreational cod fishing in Trinity Bay, NL, is Alan and Matthew's favourite summer pastime. To make sure there are enough cod for future generations, they release any cod they catch that is 55 cm or smaller. Over the three-week fishing season, Alan and Matthew measure the length of each fish they catch.

- Create a histogram with a bin size of 6, starting at 29.
- What percent of fish caught were over 65 cm?

Fish Length (cm)
<del>57</del>
<del>48</del>
<del>54</del>
<del>60</del>
<del>71</del>
<del>30</del>
<del>62</del>
<del>41</del>
<del>59</del>
<del>29</del>
<del>68</del>
<del>62</del>

Bin	Tally	Bin	Tally
29-35	3	65-71	2
35-41	1		
41-47	○ 0		
47-53	1		
53-59	1		
59-65	4		



Comp Check: Section 4.1: Histograms

Morgan is looking for an automobile insurance policy. He researches annual insurance premiums from many companies for cars similar to the one he drives. Morgan receives the following quotes.

~~\$705~~, \$720, \$711, ~~\$710~~, \$735, \$713, \$714, ~~\$708~~, \$728, \$731, \$713, \$722

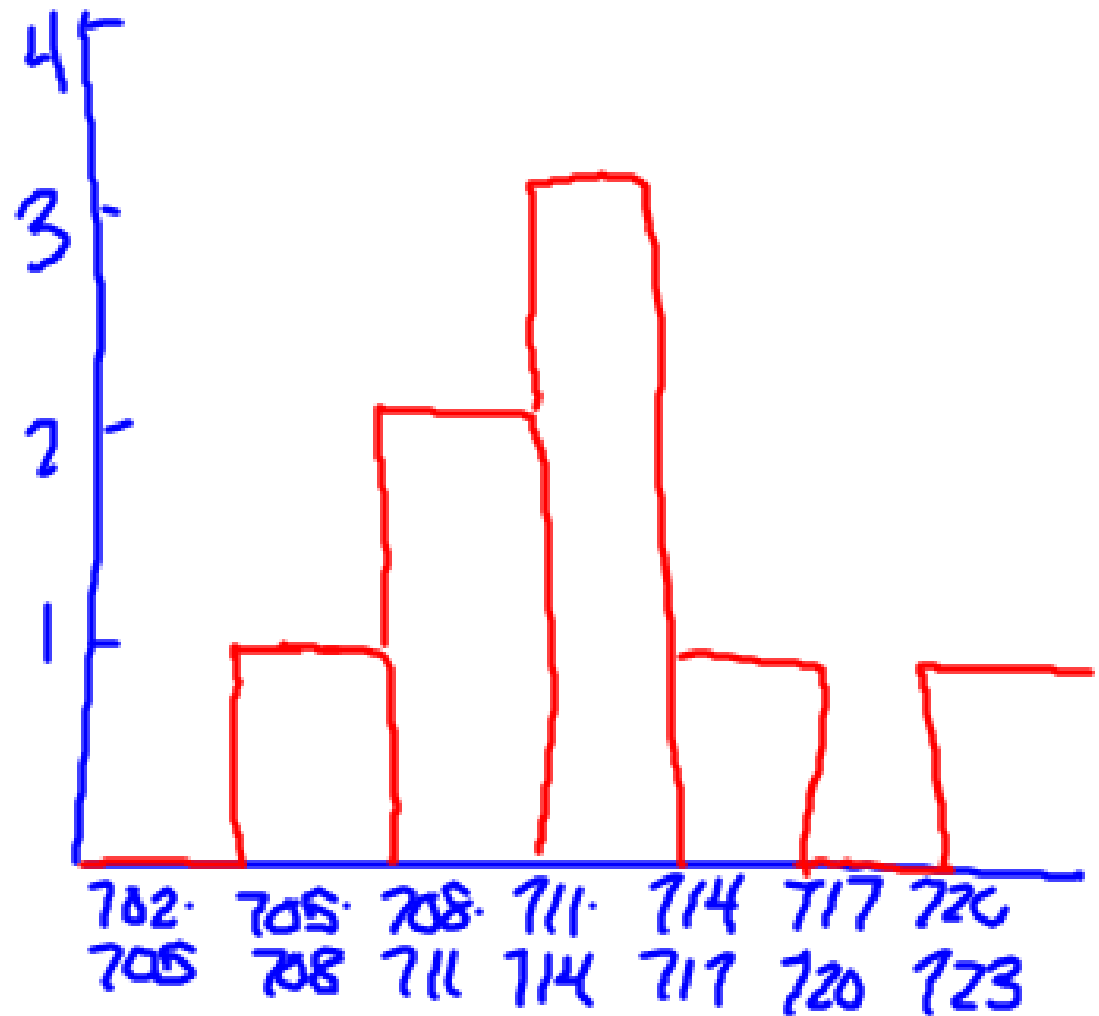
A) Create a histogram for the above data. Use a bin size of 3 starting at \$702.

Note: Make sure to show your tally chart and frequency chart!

B) What percentage of the data is in bin [ 711 - 714 )

Bin	Tally	Freq
702-705		0
705-708		1
708-711		2

Bin	Tally	Freq
702-705		0
705-708		1
708-711		2
711-714		3
714-717		1
717-720		0
720-723		1
723-726		0
726-729		1
729-732		1
732-735		0
735-738		1



From last time:

Interpolating is when you look INSide the data you already know to predict a value.

Extrapolating is when you look outside the data that you already know for EXTRA information. You extrapolate to predict a future or past value.

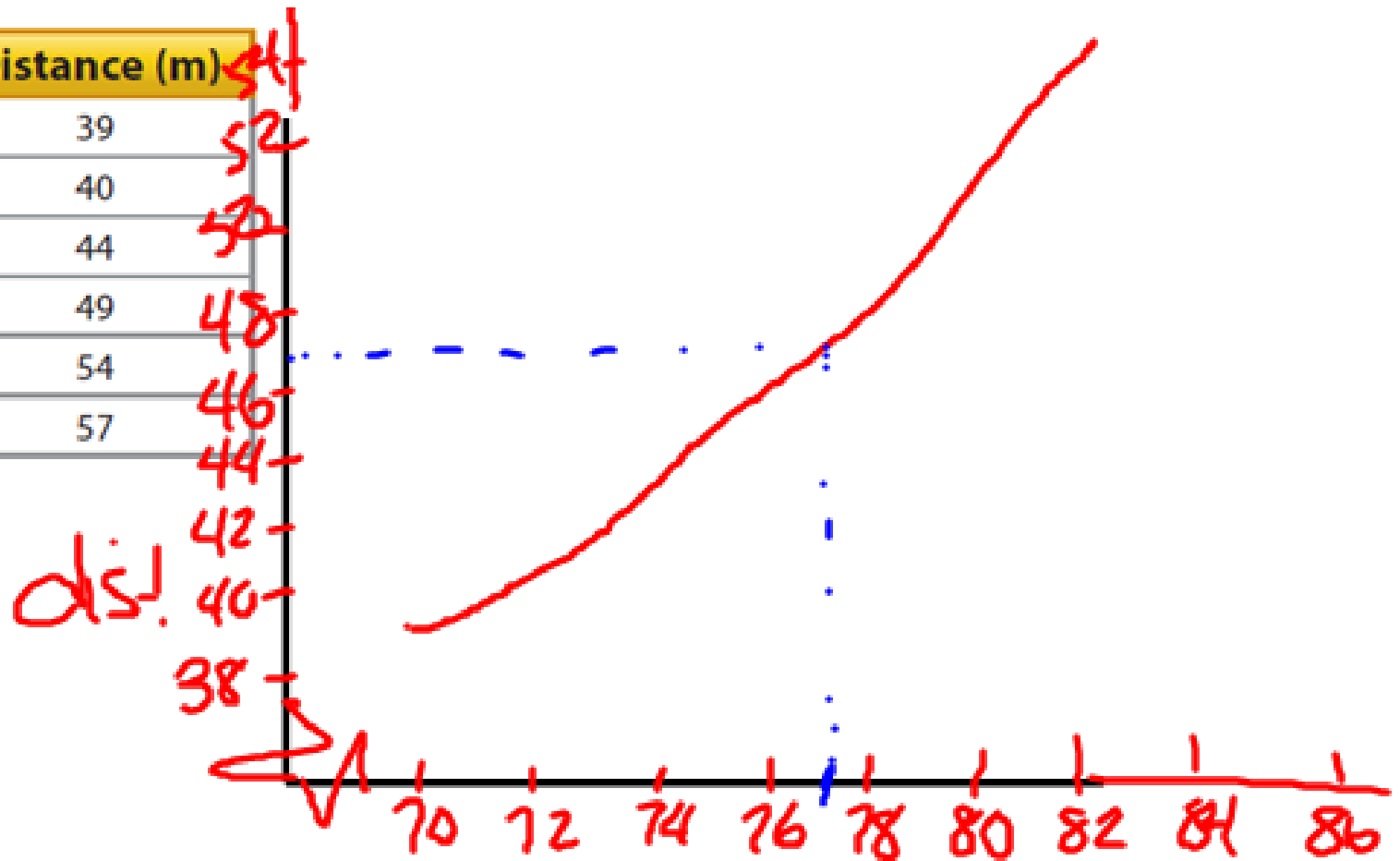
## Your Turn

Cory plays baseball frequently. His coach records the speed of each of his outfield throws and the distance the ball travels.

Speed (km/h)	Distance (m)
70	39
72	40
75	44
80	49
83	54
85	57

- Represent the data using an appropriate type of graph. *Line Graph*
- Extrapolate to predict how far the ball would likely travel if Cory threw at a speed of 87 km/h.
- Interpolate to determine how far the ball might travel if Cory threw at a speed of 77 km/h.
- What might affect your answers to parts b) and c)?

Speed (km/h)	Distance (m)
70	39
72	40
75	44
80	49
83	54
85	57



independent  $\Rightarrow$  x-axis

dependent  $\Rightarrow$  y-axis

a) approx - 47 km/h

b) approx - 62 km/h

Page 174-175

#1-4

Page 178 - 179

#1-5

Page 180 - 181

# 1-4

