Unit 5 Topic 2 Quiz - Snow Cone Hut Profits
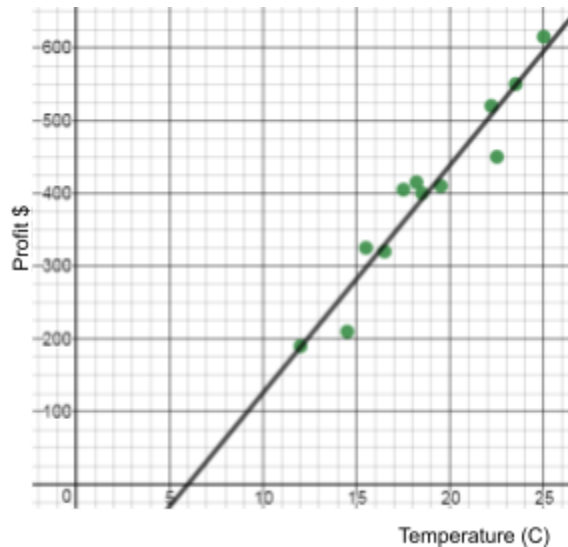

1. The following scatter plot relates the temperature each day (°C), to the amount of profit made by a snow cone hut in Kats, Colorado.

Profit $

Temperature (C)

a. What type of correlation is this? (High/low, Positive/negative)

b. The equation is $y = 31.29x - 187.04$. What do the slope and y-intercept mean in this context?

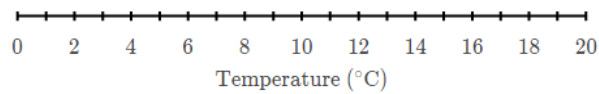c. What profit would the snow cone hut expect to make on a day that is 30°C? **Use the equation.**

d. Use the **graph** to determine what the temperature has to be for the snow cone hut to **break even**.
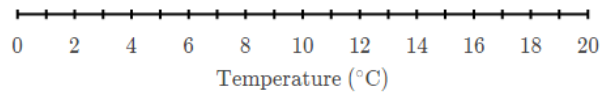
2. Create a dot plot, histogram, and boxplot for the following list of numbers. The numbers given are a record of the daily high temperatures in Kats, Colorado in April.

6	7	7	8	8	9	9	9	10	10
10	10	10	11	11	11	12	12	12	12
13	14	14	16	16	17	17	18	18	19

Dot Plot

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├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤
0   2   4   6   8   10  12  14  16  18  20
            Temperature (°C)
```

Box Plot

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├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤
0   2   4   6   8   10  12  14  16  18  20
            Temperature (°C)
```

Histogram

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│
└─┼─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤
0   4   8   12  16  20
     Temperature (°C)
```
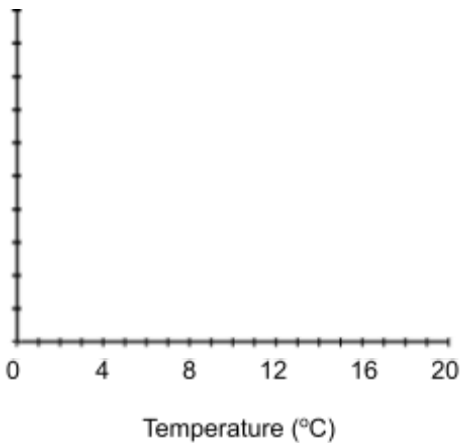
a. Looking back at your **scatter-plot**, what temperature does it have to be for the business to make at least $100 profit?_____

b. Looking at your **dot plot**, how many days in April will make at least $100 profit?_____

c. Do you think it is worth being open in April? Why or why not?