

Name: _____

STAT

Empirical Rule Practice #2: For each problem, be sure to include and label a sketch of a normal distribution. Show your computations and shade the graph accordingly.

- 1) The lifespans of alligators in a particular zoo are normally distributed. The average alligator lives 79.6 years; the standard deviation is 13.4 years. Estimate the probability of an alligator living between 66.2 and 93 years.

- 2) The lifespans of snakes in a particular zoo are normally distributed. The average snake lives 29.8 years; the standard deviation is 6.3 years. Estimate the probability of a snake living longer than 36.1 years.

- 3) The lifespans of zebras in a particular zoo are normally distributed. The average zebra lives 27.3 years; the standard deviation is 6 years. Estimate the probability of a zebra living less than 33.3 years.

- 4) The lifespans of elephants in a particular zoo are normally distributed. The average elephant lives 55.2 years; the standard deviation is 4.9 years. Estimate the probability of an elephant living between 50.3 and 69.9 years.

- 5) The lifespans of snakes in a particular zoo are normally distributed. The average snake lives 24.5 years; the standard deviation is 5.5 years. Estimate the probability of a snake living between 8 and 30 years.

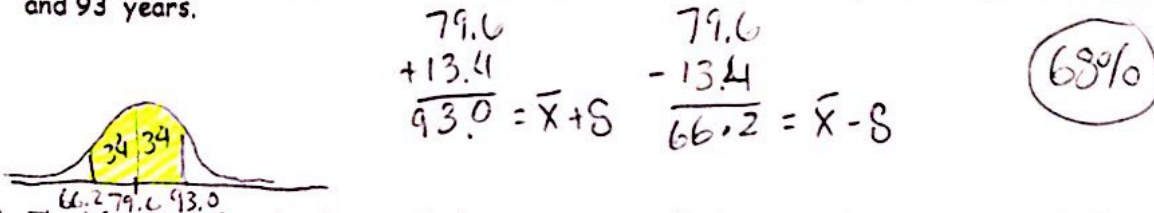
- 6) The lifespans of elephants in a particular zoo are normally distributed. The average elephant lives 52.8 years; the standard deviation is 5.6 years. Estimate the probability of an elephant living longer than 47.2 years.

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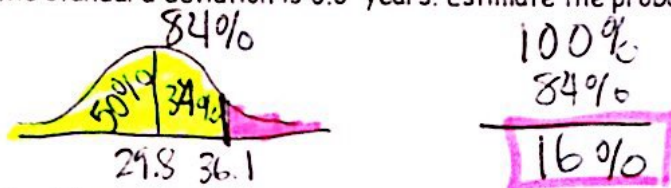
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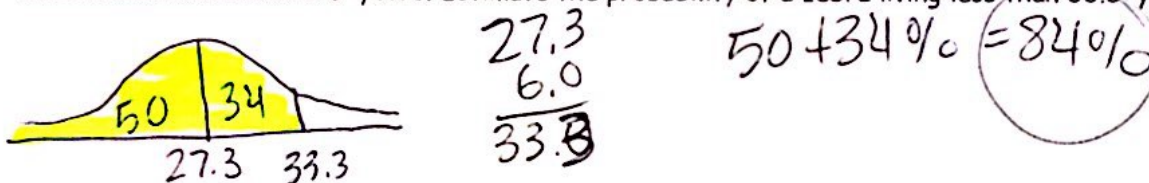
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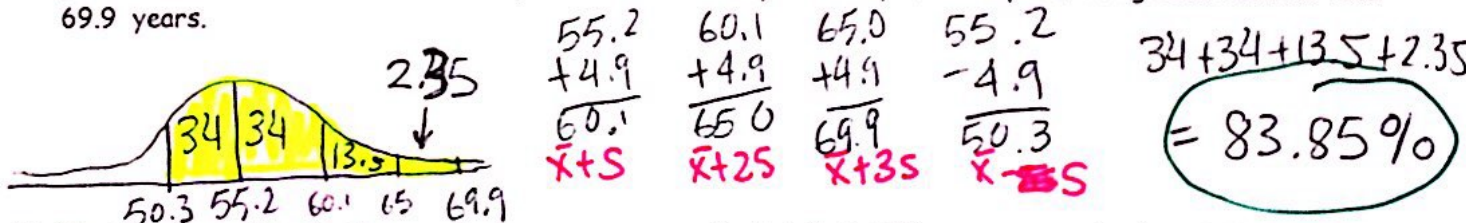
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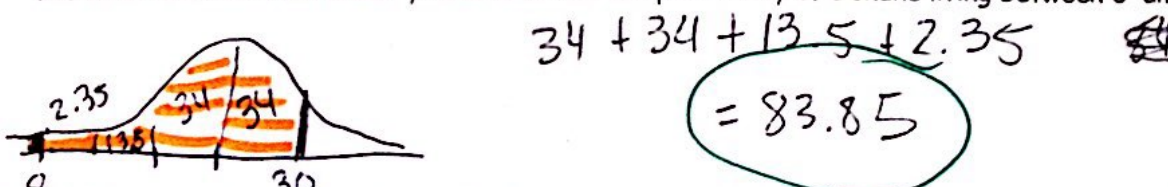
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