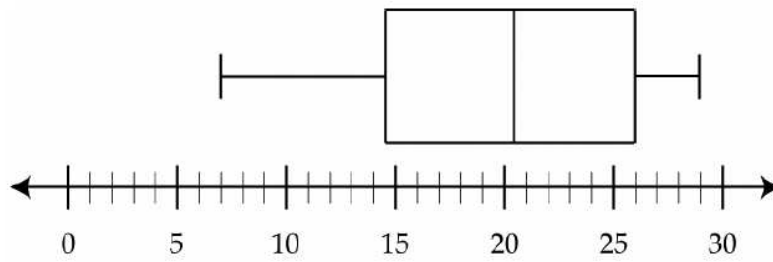# *Box-and-Whisker Plots*

1) Below are the prices of snowboards at two competing snowboard stores:

Middletown Snowboards	Snowboard Central
345, 350, 356, 360, 375, 405	343, 370, 386, 392, 395, 402

a) Draw two box-and-whisker plots, one above the other, one for each store. Make sure to show an appropriate scale for your axis.

b) What is the median price for a snowboard at Middletown Snowboards?

c) What is the lowest price you could pay for a snowboard at Snowboard Central?

d) What is the most expensive board at Middletown Snowboards?

e) What is the range of prices for snowboards at Snowboard Central?

f) Which price represents the 75th percentile for Middletown Snowboards?

g) Which store would you rather buy a snowboard from? Why?

SEE OTHER SIDE

2) The accompanying box-and-whisker plot represents the cost, in dollars, of twelve CD's.

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                    0    5    10   15   20   25   30
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a) Which cost is the upper quartile?

b) What is the range of the costs of the CD's?

c) What is the median?

d) Which cost represents the 25th percentile?

e) How many CD's cost between $14.50 and $26.00?

f) How many CD's cost less than $14.50?

Box-and-Whisker Plots

1) Below are the prices of snowboards at two competing snowboard stores:

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a) Draw two box-and-whisker plots, one above the other, one for each store. Make sure to show an appropriate scale for your axis. Make sure to show an appropriate scale for your axis.

	Middletown Snowboards	Snowboard Central
Range:	60	59
Minimum:	345	343
Maximum:	405	402
Median:	358	389
Lower Quartile:	350	370
Upper Quartile:	375	395

Middletown Snowboards

345   350   358   375   405

Snowboard Central

343   370   389   395   402

340   350   360   370   380   390   400   410

Prices

b) What is the median price for a snowboard at Middletown Snowboards?

$358

c) What is the lowest price you could pay for a snowboard at Snowboard Central?

$343

d) What is the most expensive board at Middletown Snowboards?

$405

e) What is the range of prices for snowboards at Snowboard Central?

$59

f) Which price represents the 75th percentile for Middletown Snowboards?

$375

g) Which store would you rather buy a snowboard from? Why?

Answers may vary. Middletown Snowboards has more models below $380, it might be easier to find a cheaper snowboard there. Snowboard Central has more models above $380: they might carry better snowboards (or just be a more expensive store!)Other issues may influence your shopping.
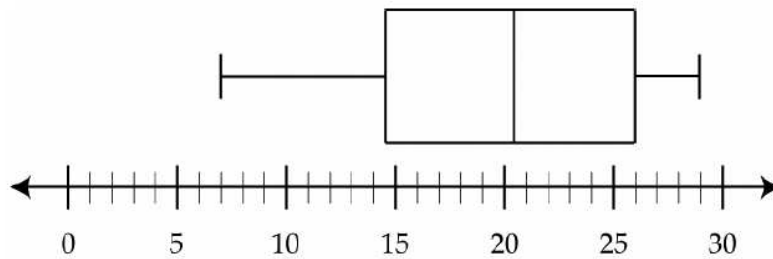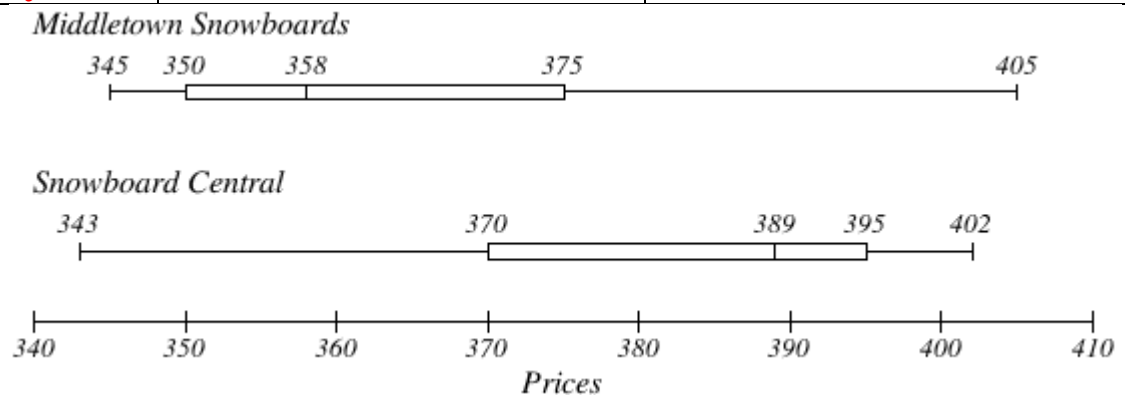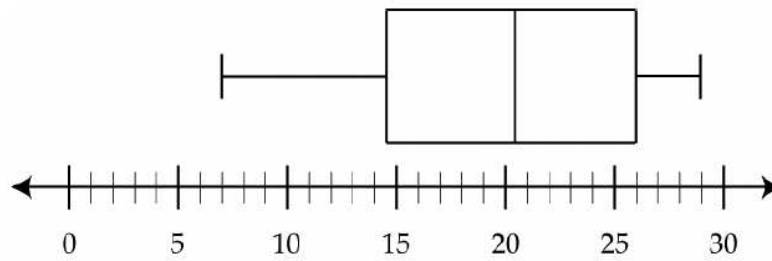
2) The accompanying box-and-whisker plot represents the cost, in dollars, of twelve CD's.

a) Which cost is the upper quartile?

$26

b) What is the range of the costs of the CD's?

$22

c) What is the median?

$20.50

d) Which cost represents the 25th percentile?

$14.50

e) How many CD's cost between $14.50 and $26.00?

6 CD's (50% of the CD's)

f) How many CD's cost less than $14.50?

3 CD's (25% of the CD's)