

1. The five-number summary for the weights (in pounds) of fish caught in a bass tournament is:

Min	Q1	Median	Q3	Max
2.3	2.8	3.0	3.3	4.5

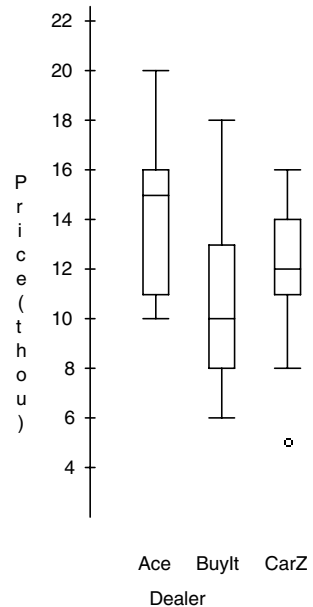
- a. Would you expect the mean weight of all fish caught to be higher or lower than the median? Explain.

Probably higher. The data appear to be skewed to the right.

- b. You caught 3 bass weighing 2.3 pounds, 3.9 pounds, and 4.2 pounds. Were any of your fish outliers? Explain.

$IQR = 3.3 - 2.8 = 0.5$. Since $1.5 \times IQR = 0.75$, the fences are $2.8 - 0.75 = 2.05$ and $3.3 + 0.75 = 4.05$. The fish weighing 4.2 pounds is more than 1.5 IQRs outside the quartiles, so it could be considered an outlier.

2. The boxplots show prices of used cars (in thousands of dollars) advertised for sale at three different car dealers.



- a. Which dealer offers the cheapest car offered, and at what price?

CarZ
\$5000

- b. Which dealer has the lowest median price, and how much is it?

BuyIt
\$10,000

- c. Which dealer has the smallest price range, and what is it?

Ace
\$10,000

- d. Which dealer's prices have the smallest IQR, and what is it?

CarZ \$3000

- e. Which dealer generally sells cars cheapest? Explain.

BuyIt; half of their cars are cheaper than any of the cars at Ace, and 25% of their cars are cheaper than all but one car at CarZ. The third quartile of their prices is well below the third quartile at CarZ, and below even the median price at Ace.