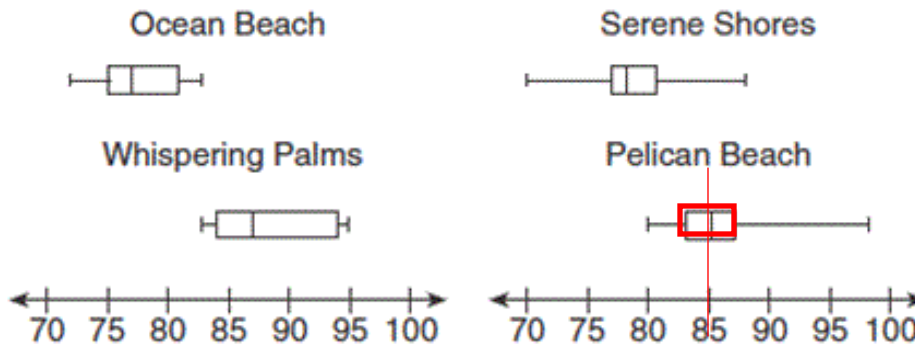


Practice Problem Set

ANSWER KEY

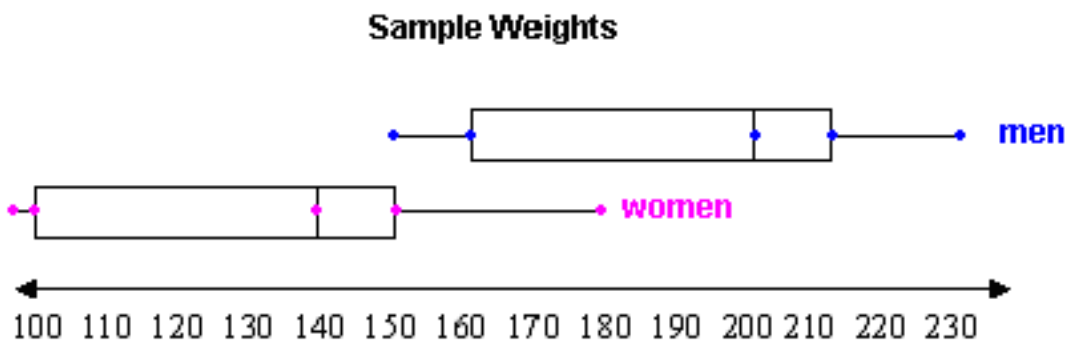
Multiple Choice

1. Corinne is planning a beach vacation in July and is analyzing the daily high temperatures for her potential destinations. She wants to choose a destination with a high median temperature and a small interquartile range. She constructed box plots shown in the diagram below.



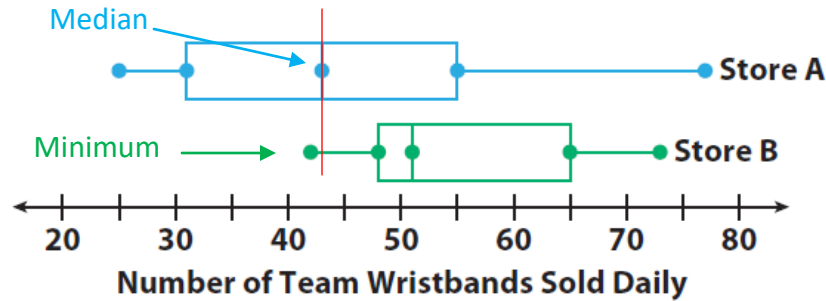
Which destination has a median temperature above 80 degrees and the smallest interquartile range?

- A. Ocean Beach B. Whispering Palms C. Serene Shores **D. Pelican Beach**
2. What conclusion can be drawn from the box-and-whisker plots below?



- A.** Men generally weigh more than women. 75% of men weigh more than 75% of woman
B. Women generally weigh more than men.
C. Men and women generally weigh the same.
D. There is no conclusion that can be drawn from this data.

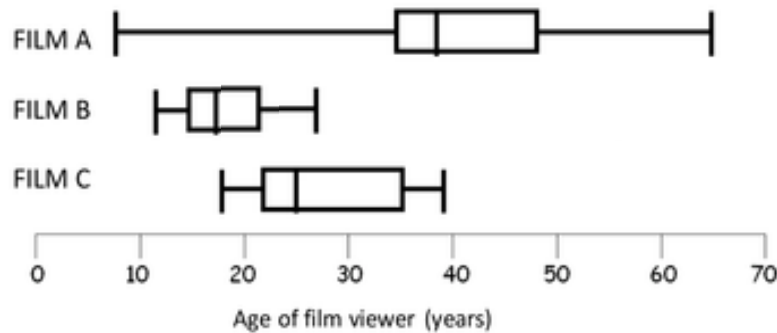
3. Consider the box plots below that show the distribution of the number of team wristbands sold daily by two different stores over the same time period. Which statement regarding the two plots is **false**?



- A. Store A has a greater spread than store B. **True (range of store A > range of store B)**
- B. Store B has a greater number of sales overall. **True (store B plot is further right than store A plot)**
- C. Store A's median is very close to store B's minimum. **True (see above)**
- D.** Store A and store B have the same interquartile range. **False**
 (IQR is the size of the box. Store A box is larger than store B box)

Extended Response

4. The box plots below show the ages of film viewers for three different movies. Analyze the graphs and answer the questions that follow.



Justify your responses. Use evidence from the graphs to support your reasoning and explanations.

- a) Which film do you think would appeal to the whole family? Explain your response.

I think film A would appeal to the whole family because it shows the greatest age range. This movie has been viewed by children younger than 10 years of age and by adults over 60 years of age.

- b) Which film do you think would appeal to teenagers? Explain your response.

I think film B would appeal to teenagers because 75% of the viewers range in age from about 12 to 22 years old.