

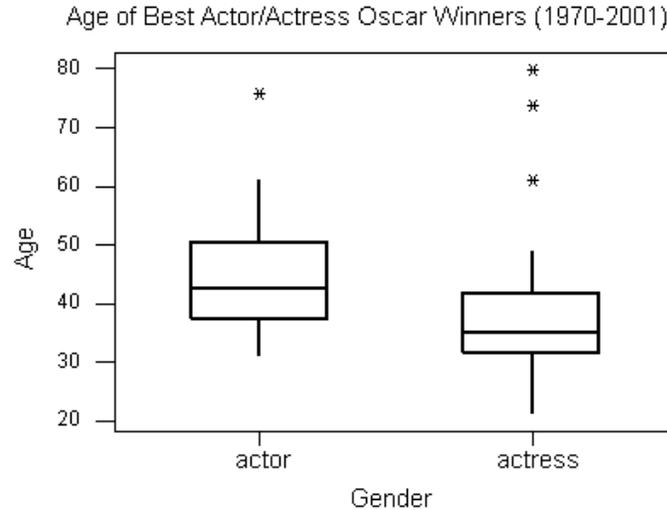
Name: _____

Date: _____

Ages of Oscar Winners

Background:

The set of boxplots shown below represent the ages of actors and actresses who have been awarded an Oscar for Best Actor/Actress. The data include 32 male actors and 32 female actresses that won the prestigious award between the years 1970 and 2001.



1. Record the five-number summary for each gender.

Actors

Minimum: _____

Q₁: _____

Median: _____

Q₃: _____

Maximum: _____

Actresses

Minimum: _____

Q₁: _____

Median: _____

Q₃: _____

Maximum: _____

2. Which gender shows more variability in the ages of the winners? Explain using appropriate measures.
3. What other statistical questions can you think of based on these plots? Is there anything surprising about the differences between genders that could be worth exploring?

Name: _____

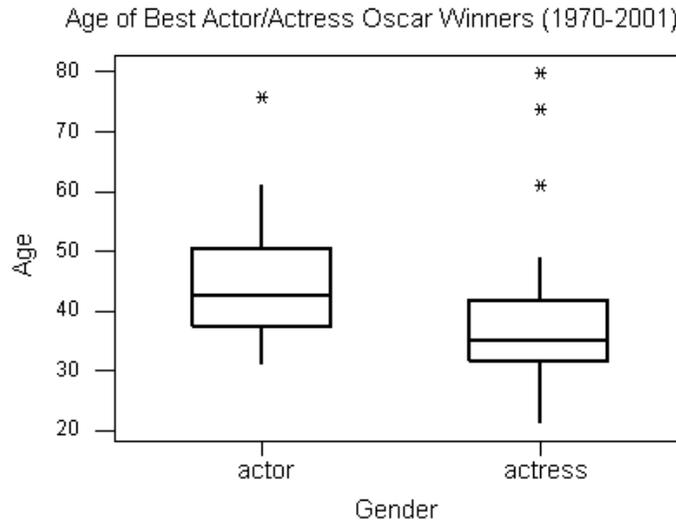
Date: _____

Ages of Oscar Winners

Answer Key

Background:

The set of boxplots shown below represent the ages of actors and actresses who have been awarded an Oscar for Best Actor/Actress. The data include 32 male actors and 32 female actresses that won the prestigious award between the years 1970 and 2001.



1. Record the five-number summary for each gender.

<u>Actors</u>	<u>Actresses</u>
Minimum: <u>31</u>	Minimum: <u>22</u>
Q ₁ : <u>38</u>	Q ₁ : <u>32</u>
Median: <u>43</u>	Median: <u>35</u>
Q ₃ : <u>50</u>	Q ₃ : <u>42</u>
Maximum: <u>76</u>	Maximum: <u>80</u>

2. Which gender shows more variability in the ages of the winners? Explain using appropriate measures.

If we use the range as a measure of spread, then the female actresses show more variability since the youngest actress was 22 and the oldest was 80 which is a difference of 58 years compared to the range of male actors which was only 45 years. If we use the IQR as a measure of spread, then we can say that there was more variability in the age of male actors since the middle 50% of male Oscar winners were within 12 years difference compared to females, which displayed only a 10-year difference. In this case the IQR is a more reliable measure of spread since it measures the spread in the middle 50% of the data and is less affected by extreme values in the data.

3. What other statistical questions can you think of based on these plots? Is there anything surprising about the differences between genders that could be worth exploring?

Answers may vary. Are female Oscar winners typically younger than male Oscar winners?