Academy Awards Activity

The Academy Awards for Best Actress and Best Actor were first given in 1929. The tables below show the ages of the winners in each category from 1929 through 2015. Examples of female winners include Audrey Hepburn (24) in 1953 for *Roman Holiday*, Julie Andrews (30) in 1964 for *Mary Poppins*, Katherine Hepburn (26, 60, 61, and 74), Jessica Tandy (80) in 1989 for *Driving Miss Daisy*, Sandra Bullock (45) in 2010 for *The Blind Side*, and Meryl Streep (33 and 62). Examples of male winners include Fredric March (49) in 1946 for *Best Years of our Lives*, Adrien Brody (29) in 2003, Daniel Day-Lewis (32, 50, and 55 for *Lincoln*), John Wayne (61) in 1969 for *True Grit*, Henry Fonda (76) in 1981 for *On Golden Pond*, and Tom Hanks (37 and 38 for *Forrest Gump*).

"Best Actors" from 1929-2015

44	41	62	53	47	35	34	34	49	41
37	38	34	32	40	43	48	41	39	49
57	41	38	39	52	51	35	30	39	36
43	49	36	47	31	47	37	57	42	45
42	45	62	43	42	48	49	56	38	60
30	40	42	37	76	39	53	45	36	62
43	51	32	42	54	52	37	38	32	45
60	46	40	36	47	29	43	37	38	45
50	48	60	50	39	55	44	33		

"Best Actresses" from 1929-2015

22	37	28	63	32	26	31	27	27	28
30	26	29	24	38	25	29	40	30	35
32	33	29	38	54	24	25	48	41	28
41	39	29	27	31	38	29	25	35	60
61	26	35	34	34	27	37	42	41	36
32	41	33	31	74	33	49	38	61	21
41	26	80	42	29	33	36	45	49	39
34	26	25	33	35	35	28	30	29	61
32	33	45	29	62	22	44	54		

NOTE: Use the course rounding rules for mean and standard deviation. Show work to support each answer.

(1) Draw a "back-to-back" stem-and-leaf plot for these two sets of data. Include a key.

(2) Compute the mean (average) age for these actors and for these actresses. Compare your results.

(3) Compute the median age for these actors and for these actresses. Compare your results.

(4) Find the mode age(s) for these actors and for these actresses.

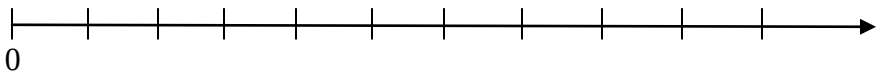
(5) Calculate and compare the age range for these actors and for these actresses.

(6) Calculate the sample standard deviation of the ages for these actors and for these actresses. Compare your results.

(7) Calculate and compare the interquartile range (IQR) for the ages of these actors and for these actresses. Show your work.

(8) Use a standard technique to decide if there are any outliers in each of the data sets. Show your work.

(9) Draw a box plot for the ages of the actors and for the actresses, clearly showing all 5 summary statistics. Use the number line below the two box plots for scaling consistency.



(10) Draw a dot plot showing the basic shape of each distribution. Describe each distribution as (nearly) symmetric, positively skewed, or negatively skewed.