

Model	EPA MPG Rating
Accord	29
Civic	35
CR-V	27
CR-Z	33
Fit	34
HR-V	29
Odyssey	22
Pilot	21

1. Honda's 2016 vehicle models and corresponding EPA fuel efficiency ratings are listed above. Use the MPG data to complete the following.

- Calculate mean
- Calculate median
- Calculate standard deviation

2. Two large corporations, A and B, hire college graduates as entry-level accountants. In 2009, the starting annual salary for an entry-level position was \$36,000 at both A and B. At each corporation, data were collected from 30 employees hired in 2009 as entry-level accountants and still employed five years later. The 2014 salaries of the 60 employees are summarized below.



- What are the advantages of working for Corp A?
- What are the advantages of working for Corp B?

3. In 2014 there were 1,414 single family home sales in the City of Pueblo. Assume the “Price per Square Foot” of properties sold in 2014 is normally distributed with mean = \$70.96 and standard deviation = \$14.27.

- Calculate the Z-Score for \$100 per square foot.
- What proportion of properties sold for less than \$50 per square foot?
- What proportion of properties sold for more than \$90 per square foot?
- What proportion of properties sold between \$90 and \$100 per square foot?
- What Price Per Square Foot corresponds to a Z-Score = -1.2?

4. A company wants to determine the relationship between the size of its sales team and total revenue. They’ve collected the data below from the past ten years for analysis.

Year	Sales Team	Revenue (Million \$)
2003	15	15
2004	18	20
2005	20	28
2006	21	28
2007	22	31
2008	28	32
2009	24	40
2010	25	37
2011	30	38
2012	35	52

- Produce a **scatter plot** for Sales Team (x) and Revenue (y).
- Calculate the Sum of Squares, **SSxx**, **SSyy** and **SSxy**.
- Determine the **Equation of the Regression Line**.
- Calculate the **Pearson Correlation Coefficient (r)**.
- Calculate the Coefficient of Determination (**r-squared**).

5. Use the “Revenue” variable in problem #4 (above) to complete the following:

- Produce a stemplot
- Find the 5-number summary
- Draw a boxplot