The image on the left was taken by the Mars Reconnaissance Orbiters High-Resolution camera. It shows a possible landing area for the InSight mission. The image to the right is a satellite view from GOOGLE Earth of a neighborhood somewhere in the United States. Both images have a width of 400 meters.

Problem 1 – How wide are the streets in this neighborhood in meters and feet?

Problem 2 – What is the diameter of the crater towards the bottom edge of the image in meters and feet?

Problem 3 – What is the diameter in meters and feet of the smallest crater you can see in the image?

Problem 4 - Find the tennis court in the neighborhood. Which crater is about the same size as a tennis court?

Problem 1 – How wide are the streets in this neighborhood in meters and feet?

Answer: When reproduced wit a standard printer for '8 1/2x11' paper, the scale of the image is 400 meters = 70 millimeters or 5.7 meters/mm. The street in the center of the image is about 3 mm wide or 17 meters, which is about 51 feet.

Problem 2 – What is the diameter of the crater towards the bottom edge of the image in meters and feet?

Answer: The crater is about 5 mm wide or 28 meters in diameter or 84 feet wide.

Problem 3 – What is the diameter in meters and feet of the smallest crater you can see in the image?

Answer: Students selections will differ, but 0.3 millimeters equals 1.7 meters or 5 feet is a good estimate. Some ambitious students may see features smaller than this.

Problem 4 - Find the tennis court in the neighborhood. Which crater is about the same size as a tennis court?

Answer: The tennis court is located in the upper left corner of the image as a greenish rectangle. It is about 150 feet long. The large crater near the top right edge is a close match to the size of the tennis court.