MATH SUPERSTARS – 5
Saturn, XXI

Name: _____

(This shows my own thinking.)

★★★   1.   Use the numbers 1, 2, and 4 to make the numbers from 1 to 9. Use each of the three numbers only once and use only the four arithmetic operations. The first one is done for you.

Example: $4 - 2 - 1 = 1$ _____ = 4   _____ = 7

                 _____ = 2   _____ = 5   _____ = 8

                 _____ = 3   _____ = 6   _____ = 9

★★   2.   Race car driver Brad Heath was interviewed about his car's fuel use. He told the reporter that his car averages 3 miles per gallon. If his car holds 22 gallons of fuel, how far can he race on a tank of fuel?

Answer: _____ mi.

Racing fuel costs $3.40 per gallon.
How much does the tank of fuel cost?

Answer : _____

★★   3.   Jan's class is entering a contest. The winner will receive tickets for the student and parents to visit the city of their choice. Jan lives in Buffalo, NY, so she would travel from New York. The distance in miles from New York to four European cities is given to the right.

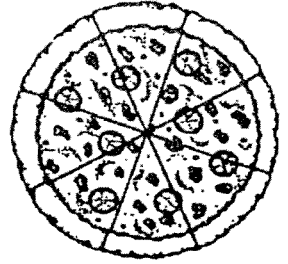| Berlin	3,965
London	3,458
Paris	3,624
Moscow	4,665

a.   What is the difference between the nearest and farthest European cities?

Answer: _____ miles

b.   Jan's mother flies to Paris and back to New York once every month. How many miles does she fly each year? (Round to nearest 1000 miles.)

Answer: _____ miles

★★   4.   One acre of land will grow 11,000 heads of lettuce. If a farmer has 1,500 acres of land and he plants lettuce on half of his farm, how many heads of lettuce can he expect to grow?
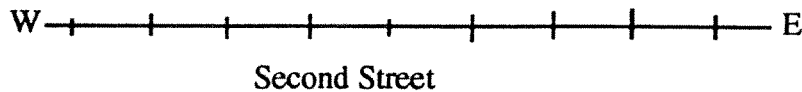
Answer: _____ heads

★★ 5. Harry and William bought a pizza for $8.99. Harry ate five pieces and William ate 3. Based on how much each one ate, how much should each pay?
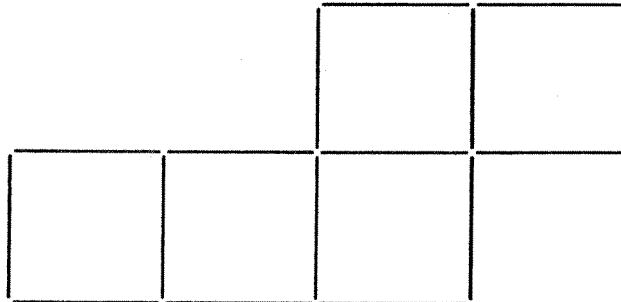
Answer: Harry should pay _____ ; William should pay _____.

★★ 6. Use the clues to locate these points on Second Street.

W ——+——+——+——+——+——+——+——+—— E

Second Street

The antique store, A, is at the *midpoint* (middle) of the street.
The museum, M, is 2 cm. west of the restaurant.
The restaurant, R, is 4 cm. east of the antique store.
The gift store, G, is 8 cm. west of the restaurant.
The theater, T, is halfway between the antique store and the museum.

★★ 7. Draw arrows to show how to rearrange exactly 2 of these toothpicks so that you will have 4 squares instead of 5. Each square is to be the same size as the ones shown.

★★★ 8. How much change will I get back from a $5 bill if I buy three pairs of socks selling as advertised? Sales tax is 6%.

Answer: _____

SALE!!
Socks ....2 pairs for $1.98

★★ 9. $\frac{3}{4} + \frac{1}{2} + \frac{5}{6} - \frac{1}{3} + \frac{7}{12} = \boxed{}$ (Be careful -- $\frac{1}{3}$ is being subtracted!)