

SUNSHINE MATH - 7

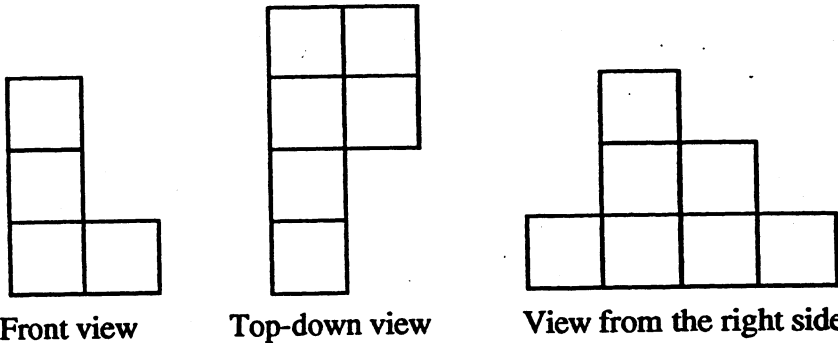
Neptune, XVIII

Name: _____

(This shows my own thinking.)

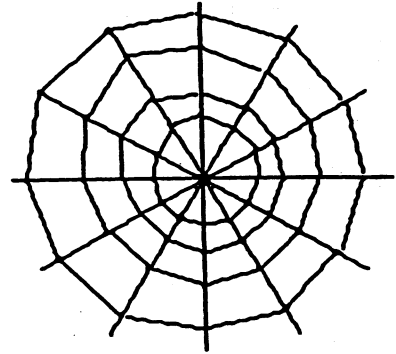
- ★★★★ 1. Three "landscape views" of a building made from cubes are shown below. How many cubes were used to make the building? Make such a building if it helps you.

Answer: _____ cubes



- ★★ 2. A spider made the web shown. How many degrees are in each *central angle* of this web? Note that somehow the spider knows to make all the central angles congruent.

Answer: _____ °



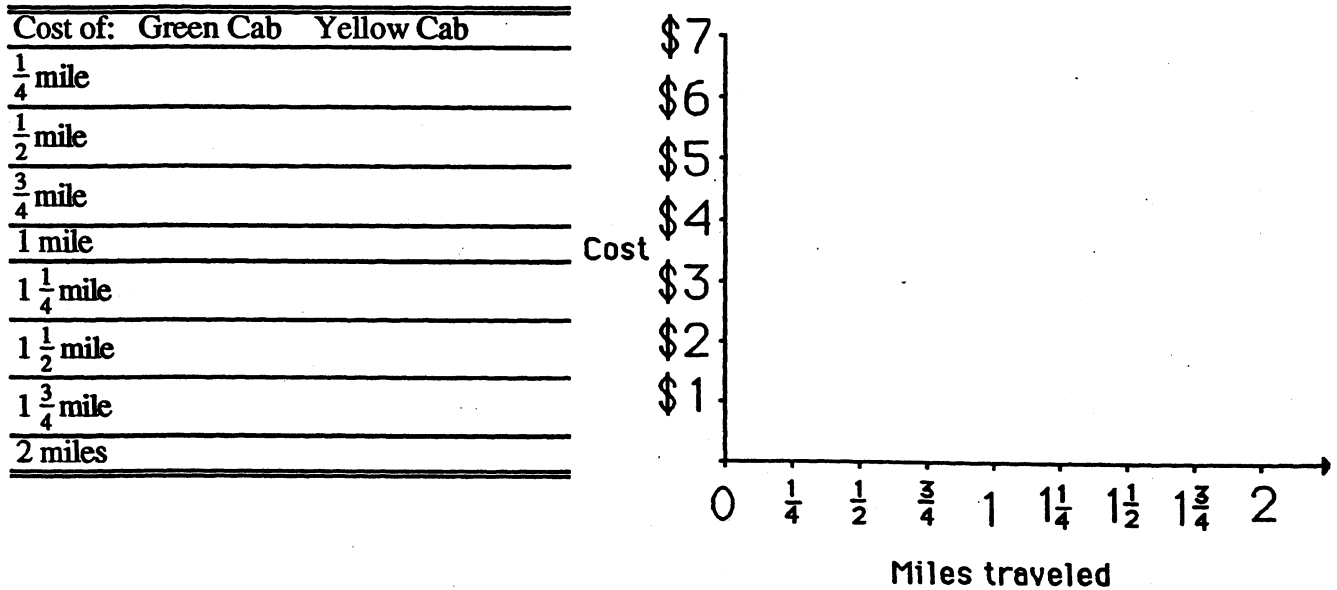
- ★★ 3. The length of each side of the military's pentagon building in Washington, DC, is a whole number of feet. Circle the number below which the perimeter could not be, if this is a *regular* pentagon:

- | | |
|--------------|--------------|
| a) 1990 feet | c) 2900 feet |
| b) 1415 feet | d) 2748 feet |

- ★ 4. You bought 12 tickets to a raffle and your sister bought 4. If 100 tickets were sold, what is the probability that you or your sister will win the raffle?

Answer: _____

- ★★★★ 5. Green Cabs charge \$1.40 for the first quarter mile and \$0.65 for each additional quarter mile. Yellow Cabs charge \$1.00 for the first half mile then a flat rate of \$1.00 for each additional quarter mile. Fill out the chart below to find the cost for each company for a few miles. Graph the rates for both companies. Then answer the questions below the graph.



- a. For what trip length are the Green and Yellow Cab fares the same? _____
 b. What happens on the graph when the fares are the same for both?

- ★★★ 6. Attendance at Busch Gardens is down. To increase the daily attendance, the daily admission price of \$30 is reduced by 20%. The plan works and attendance increases, but now the park is overcrowded. To reduce the number of people, the admission price is now raised 20%. How does the new price compare to the original price?

Answer: _____

- ★★★ 7. An English teacher was asked how many fish she caught. She replied:

*When I tried to place a fish upon each dish, I had a fish without a dish.
 When I tried to place two fish upon each dish, I had a dish without a fish.
 You'll never hear boos and hisses, if you can find how many fishes!*

How many did she catch? _____