## SITE SEEKING <br> In Chicago

## ANSWERS

## Site Seeking in Chicago, Worksheet:

(1a. A tuning fork. 1b. You could adjust your voice until it matches the note made by the fork. 2a. Close together. 2b. If the wave's crests are close together, the sound has a high frequency-or is highpitched. If the crests are far apart, it has a low frequency-or is low-pitched. 3a. The German Mark. 3b. Six British
Pounds. 4a. Three times as much weight. 4b. Twice as much weight.
5a. The measure of the angles is equal. 5b. 47 degrees. 6a. .7. 6b. Answers will vary. For example, 3 or .4. 7a. 3/10. 7b. 1/6. 8a. $41 / 2.8$ b. $11 / 2.9$ a. The object slides to the right. 9b. Push the left arrow three times and push the down arrow two times.)


TS-1.1


Name: $\qquad$
Date: $\qquad$

Play the game to find the answer to part " $A$ " of each question. Then tap your brain to answer part "B"!

1A. What object did you need before you could tune the pipe organ for Mahalia Jackson? $\qquad$
1B. Suppose you were to hit the object from 1A on a table. The object would vibrate, creating a musical note. Explain how this could help you to begin a song on the correct note. $\qquad$
$\qquad$

2A. An oscilloscope (ah-SILL-eh-scope) is an instrument that measures sound waves. When a pipe is high-pitched, are the wave's crests (tops) far apart or close together? $\qquad$
2B. Humans can only hear sounds that range from 20 to $20,000 \mathrm{~Hz}$. If a sound has too low of a frequency or too high of a frequency, people aren't able to hear it (although some other animals can!). How could an oscilloscope help someone figure out if a sound is high- or low-pitched even if they couldn't hear it? $\qquad$

3A. What is the standard currency used in Germany? $\qquad$
3B. Suppose one U.S. dollar was worth 2 German Marks, and 2 German Marks were worth 6 British Pounds. How many British Pounds would one U.S. dollar be worth? $\qquad$


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In Chicago
Name: $\qquad$
Date: $\qquad$

4A. Suppose you were to use a three-wheeled pulley. How much more weight could you lift than if you didn't use a pulley at all? $\qquad$
4B. Consider a three-wheeled pulley and a six-wheeled pulley. How much more weight can the six-wheeled pulley lift compared to the three-wheeled pulley?

5A. How does the angle between a mirror and an incoming light beam compare to the angle between the mirror and the outgoing beam? $\qquad$

5B. Suppose an incoming beam made a 47-degree angle with a mirror. What angle would the outgoing beam make with the mirror? $\qquad$
6A. Which is the highest decimal: . $5, .2, .7 ?$
6B. Write a decimal that is higher than .2 , but lower than .5 .
7A. Suppose you were to open a refrigerator containing three carrots, two onions, and five green peppers. What is the ratio of carrots to the total number of vegetables?

7B. Now suppose you were to add eight cucumbers. Now what is the ratio of carrots to the total number of vegetables?

8A. Two customers sit down to eat 9 cups of chili. How many cups should each person get if you are to give them equal amounts of chili? $\qquad$

SS-1.2

## SITE SEEKING

In Chicago
Continued
Name: $\qquad$
Date: $\qquad$

8B. Before you get to serve the chili to the two customers above, four more people join the table. Now how many cups of chili should each customer get? Be sure to divide the chili equally! $\qquad$
9A. What happens to the game pieces on your screen when you push the right arrow key? Use the proper term: slide, flip, or turn. $\qquad$

9B. Suppose you wanted to move a game piece three units to the left and then two units down. Which keys would you press and how many times would you press each of them? $\qquad$


