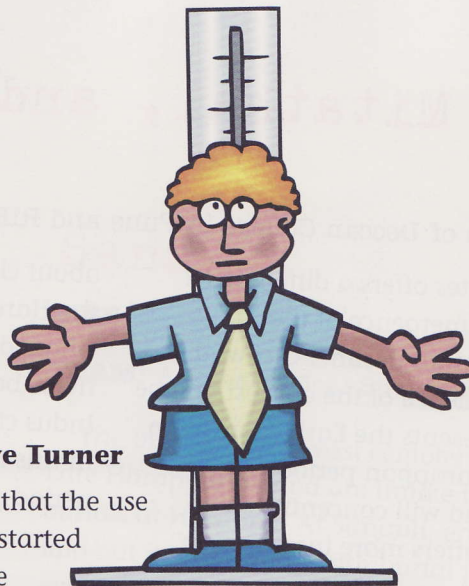




ACTIVITY

by Myra Faye Turner



Evidence suggests that the use of mathematics in India started in the Indus region. Among the contributions attributed to these ancient people are accurate methods of measuring length, mass, and time. In fact, they were the first to develop a system of uniform weights and measures in South Asia.

Excavations at Harappa prove that the people used mathematics for practical purposes, primarily for scales and brick technology. Their ratios for brick dimensions—thickness:width:length (**1:2:4**)—made it possible to construct strongly bonded walls. In Mohenjo-daro, a remarkable incised ornament was uncovered. Often referred to as the Mohenjo-daro ruler, this artifact has divisions that measure lengths of 1.32 inches, the so-called Indus inch. The subdivisions have a maximum error of just 0.005. Interestingly, 10 units on this object equal 13.2 inches (that is, 10×1.32),

which is approximately the length of the modern 12-inch ruler, although there is no historical connection between the two.

We may never understand all the contributions these ancient people made to the field of mathematics, especially since the Indus script has not yet been deciphered. However,

the finds thus far uncovered—including evidence of accurately laid-out streets, a drainage system, and well-designed buildings—prove that they did indeed understand the use and value of accurate measurements.

Now, let's have some fun using the Indus inch. Figure out the value of each of the 23 units opposite, using the Indus inch as the basic unit. Put the letter of the alphabet that corresponds to each number problem on the appropriate line. When you have computed all 23 units, the letters in the spaces will spell a popular saying.

USING THE

HONI S INDUS N

1 INDUS INCH

2 INDUS INCHES

3 INDUS INCHES

4 INDUS INCHES

5 INDUS INCHES

6 INDUS INCHES

7 INDUS INCHES

HAVE A QUESTION? ASK ME!
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1:2:4:
1 means the thickness,
2 means the width,
and 4 means the length.



Present-day brickmaking in the Indus Valley region

PROBLEMS:

1. 7 units = _____
2. 9 units = _____
3. 22 units = _____
4. 5 units = _____
5. 13 units = _____
6. 1 unit = _____
7. 14 units = _____
8. 9 units = _____
9. 14 units = _____
10. 3 units = _____
11. 8 units = _____
12. 8 units = _____

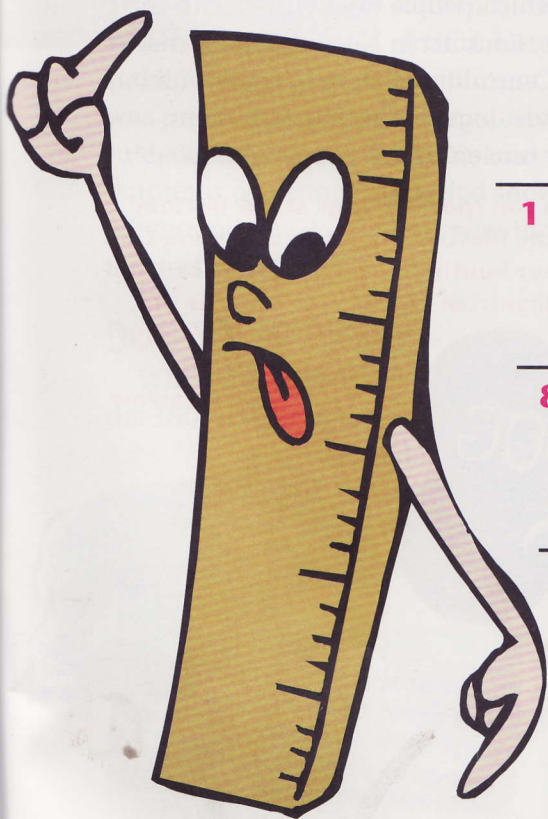
13. 5 units = _____
14. 12 units = _____
15. 12 units = _____
16. 20 units = _____
17. 1 unit = _____
18. 11 units = _____
19. 5 units = _____
20. 13 units = _____
21. 9 units = _____
22. 12 units = _____
23. 5 units = _____

KEY

- 1.32 = **A**
- 2.64 = **B**
- 3.96 = **C**
- 5.28 = **D**
- 6.60 = **E**
- 7.92 = **F**
- 9.24 = **G**
- 10.56 = **H**
- 11.88 = **I**
- 13.2 = **J**
- 14.52 = **K**
- 15.84 = **L**
- 17.16 = **M**
- 18.48 = **N**
- 19.8 = **O**
- 21.12 = **P**
- 22.44 = **Q**
- 23.76 = **R**
- 25.08 = **S**
- 26.4 = **T**
- 27.72 = **U**
- 29.04 = **V**
- 30.36 = **W**
- 31.68 = **X**
- 33.0 = **Y**
- 34.32 = **Z**

HINT:

The answer to the first one is: G (7 units x 1.32 = 9.24).



_____ A _____ AN
 1 2 3 4 5 6 7

_____ AND _____
 8 9 10 11 12 13 14 15

_____ A _____
 16 17 18 19 20 21 22 23

Answers are on page 42.

Myra Faye Turner is a writer from New Orleans, Louisiana.