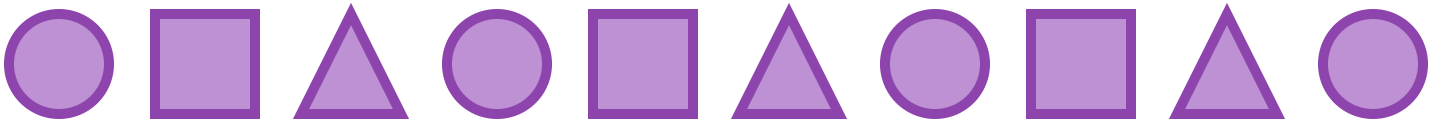
TANG MATH

Brain Builder

2025-2026



Unit 2

Multiply Whole Numbers

Lessons 16 – 24

LEVEL

E

16. Multiply using the Standard Algorithm: Part I
17. Multiply using the Standard Algorithm: Part II
18. Use the Multiplication Standard Algorithm in Equal Groups Word Problems
19. Use the Multiplication Standard Algorithm in Comparison Word Problems

20. Perimeter Word Problems
21. Composite Perimeter & Area of 2D Shapes
22. Volume of Rectangular Prisms
23. Composite Volume of Rectangular Prisms

24. Model Numbers in Expanded Form with Exponents

Name:

MAZE - A

Find your way from the top of the maze to the bottom.
Circle the problem if the **product is between 600 and 800**.

274 x 3	223 x 4	109 x 5	179 x 5	183 x 4
182 x 3	417 x 2	410 x 2	158 x 5	202 x 3
201 x 4	175 x 4	239 x 3	399 x 2	297 x 2
282 x 2	121 x 5	115 x 5	266 x 2	443 x 2
425 x 2	324 x 2	155 x 4	265 x 3	195 x 3
291 x 3	285 x 3	179 x 5	136 x 5	145 x 4

Name:

MAZE - B

Find your way from the top of the maze to the bottom.
Circle the problem if the **product is odd and greater than 500.**

18 x 40	51 x 17	39 x 20	36 x 20	23 x 15
27 x 17	37 x 21	23 x 29	43 x 17	19 x 35
52 x 12	38 x 18	16 x 25	14 x 29	33 x 25
25 x 15	13 x 41	39 x 21	23 x 27	39 x 19
39 x 11	35 x 15	19 x 34	23 x 19	37 x 16
23 x 21	27 x 25	32 x 25	19 x 21	21 x 21

Name:

FILL IN THE BLANK - A

Use digits from the bank to correctly fill the blanks in each word problem.
Each digit can be used only once.

Digit Bank

4 5 6 7 8 9

The fruit stand has 3__ crates of apples with 111 apples in each crate.

There are __,329 apples in all.

The library has 2__ shelves of reference books. Each shelf contains

248 books. All together, the library has 6,__96 reference books.

Jeff charges $4__ to clean a house. He cleaned 123 houses over the

summer. He made $__,904 in all.

Name:

FILL IN THE BLANK - B

Use digits from the bank to correctly fill the blanks in each word problem.
Each digit can be used only once.

Digit Bank

3 4 5 6 7 8 9

Pierre's apartment building is 41 ft tall. The Eifel Tower is 24 times as tall Pierre's building. The Eifel Tower is __84 ft tall.

The Willis Tower in Chicago is 26 times as tall as a large tree in a nearby park. The tree is 1__ meters tall. The Willis Tower is __42 meters tall.

The Burj Khalifa is the tallest building in the world. It is __9 times as tall as a giraffe. A giraffe is 12 meters tall. The Burj Khalifa is 82__ meters tall.

The Tokyo Skytree is the world's tallest observation tower. It is 6__ times as tall as the utility pole beside it. The utility pole is __2 ft tall. The Tokyo Skytree is 2,080 ft tall.

Name:

WHO AM I?

Write the correct answer on the line below each clue.
Be sure to read carefully!

Each side of a regular octagon is three hundred inches more than 205 inches
I am the perimeter of the octagon, in inches.
Who am I?

_____

Each side of a regular hexagon is two hundred cm fewer than 610 cm.
I am the perimeter of the hexagon, in cm.
Who am I?

_____

Each side of a regular pentagon is six hundred cm more than 111 cm.
I am the perimeter of the pentagon, in cm.
Who am I?

_____

Each side of a regular nonagon is four hundred inches fewer than 999 inches.
I am the perimeter of the nonagon, in inches.
Who am I?

_____

Name:

DIMENSION DETECTIVE - A

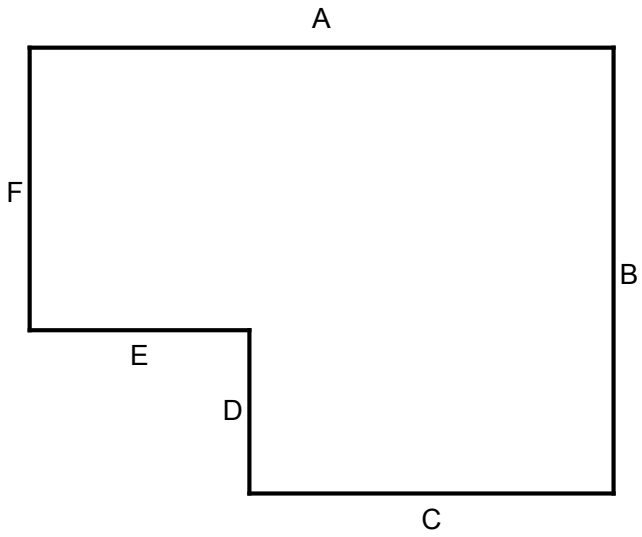
Use the clues along with the figure at the bottom to complete the table.

Clues:

a. E = ½ B

b. A x B = 80 sq ft

Side A		feet
Side B		feet
Side C		feet
Side D	3	feet
Side E		feet
Side F		feet
Total Area	68	square feet
Total Perimeter		feet



Rectilinear figure not drawn to scale

Name:

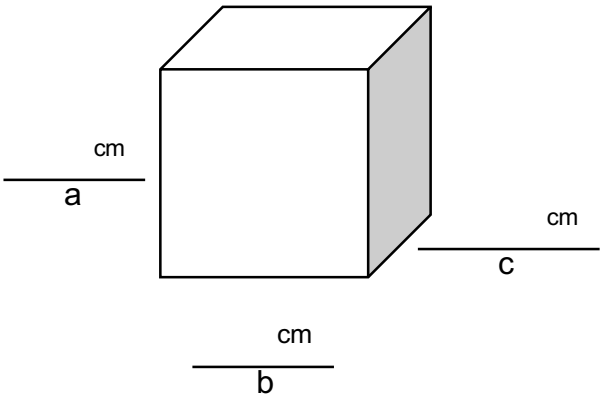
DIMENSION DETECTIVE - B

Use all numbers from the bank and the clues to figure out the dimensions of each rectangular prism. *Objects are not drawn to scale.*

Number bank

3 4 5 6 7 8 9 10 11 12

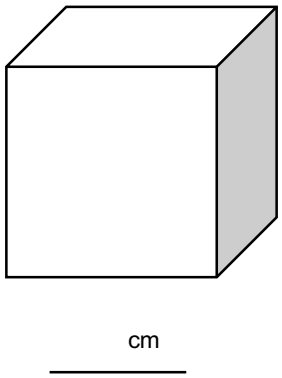
Volume = 450 cm^3



a x c = 50 cm^2

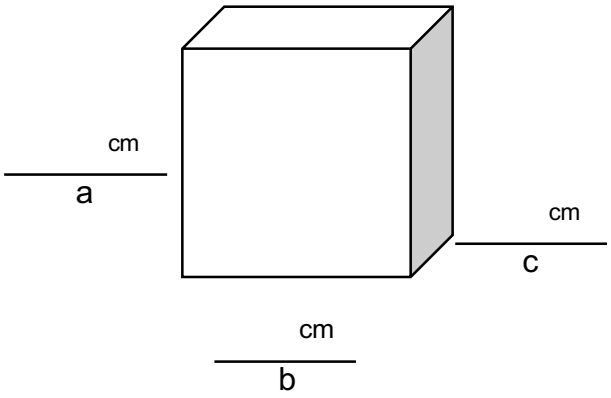
b + c = 19 cm

Volume = 343 cm^3



Area of base = 49

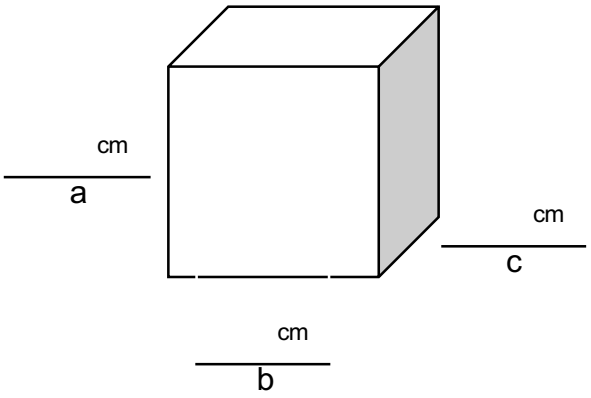
Volume = 288 cm^3



Area of base (b x c) = 24 cm^2

a = 2c

Volume = 264 cm^3



Area of base (b x c) = 24 cm^2

a > 3c

Name:

DIMENSION DETECTIVE - C

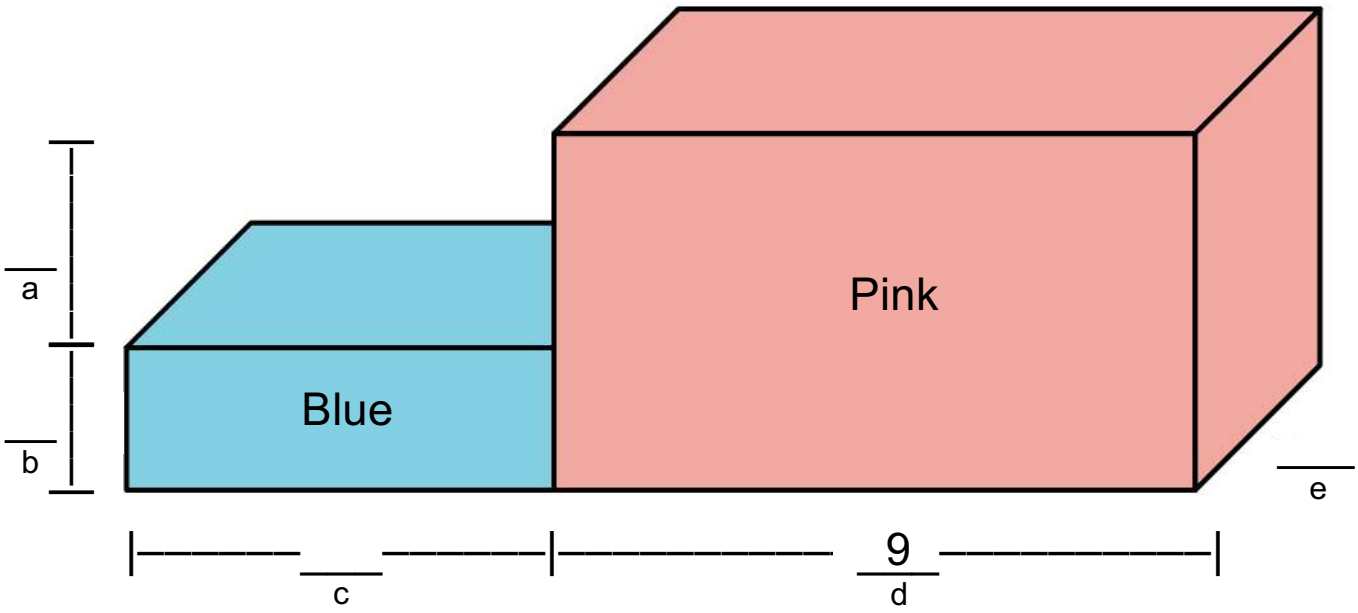
Use the clues and the digits from the bank to correctly fill the blanks.

Clues:

$$a + c = d$$
$$d - b = e$$
$$a \times e = 21$$

Digit bank

1 2 3 4 5 6 7 8 ~~9~~



Blue Volume = __ __

Pink Volume = 3 __ __

Total Volume = 3 9 9

Name:

WHAT'S WRONG? - B

In each row, cross off the equation that is NOT TRUE.
Be prepared to explain your choice. Why might someone choose the "wrong" answer?

~~4 x (8 - 3) = 31~~	4 x (8 - 3) = 20
(7 x 7) - 3 + 5 = 51	(7 x 7) - 3 + 5 = 41
36 - 6 x (20 ÷ 5) = 120	36 - 6 x (20 ÷ 5) = 12
(18 - 10) - (14 ÷ 7) x 4 = 0	(18 - 10) - (14 ÷ 7) x 4 = 24
10 x [15 ÷ (3 + 2) + 1] = 40	10 x [15 ÷ (3 + 2) + 1] = 51
82 - [39 - (4 + 5) ÷ 3)] x 2 = 62	82 - [39 - (4 + 5) ÷ 3)] x 2 = 10