

RECALL



Here are six digit cards.



Use **all six** digit cards to make three multiples of 3

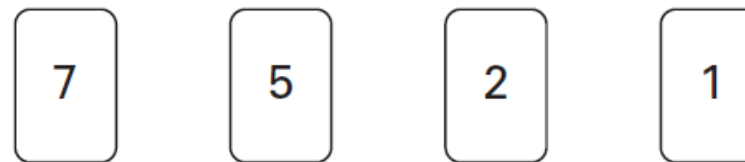


multiple of 3

multiple of 3

multiple of 3

Here are four digit cards.



Choose two cards each time to make the following two-digit numbers.

The first one is done for you.



an even number

a multiple of 9

a square number

a factor of 96



I can multiply and divide single-digit numbers by 10 and 100.

2. Work out

(a) $70 \div 10$

(b) $6000 \div 100$

(c) $17 \div 10$

(d) $93 \div 100$

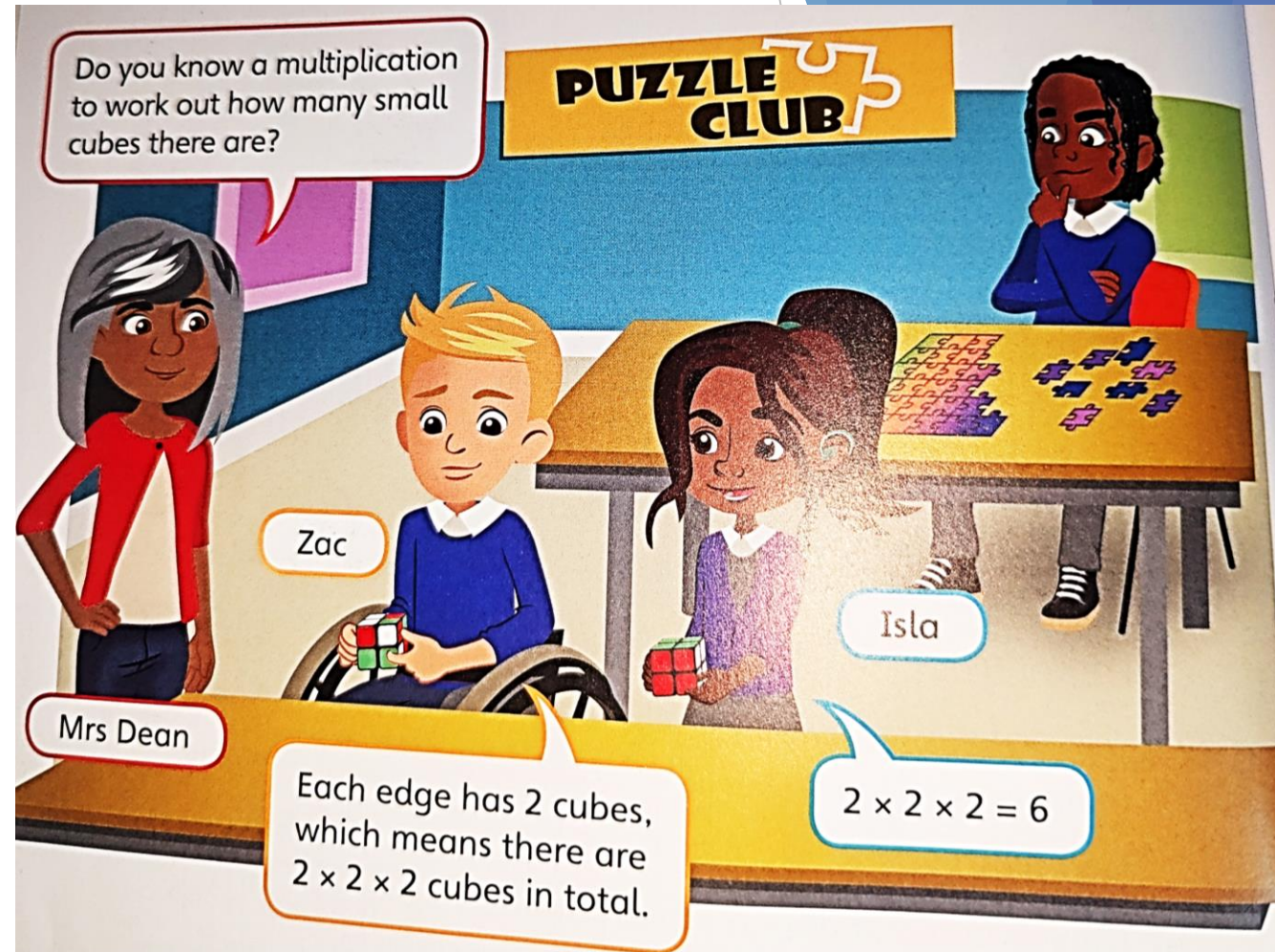
One Millions	Hundred Thousands	Ten Thousands	One Thousands	Hundreds	Tens	Ones	Decimal point	Tenths	Hundredths	One-Thousandths	Ten-Thousandths	Hundred-Thousandths
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Guided Practice

- ▶ What is a cubed number?
- ▶ Have you heard of this term before?
- ▶ Chat to your partner

Guided practice - My turn

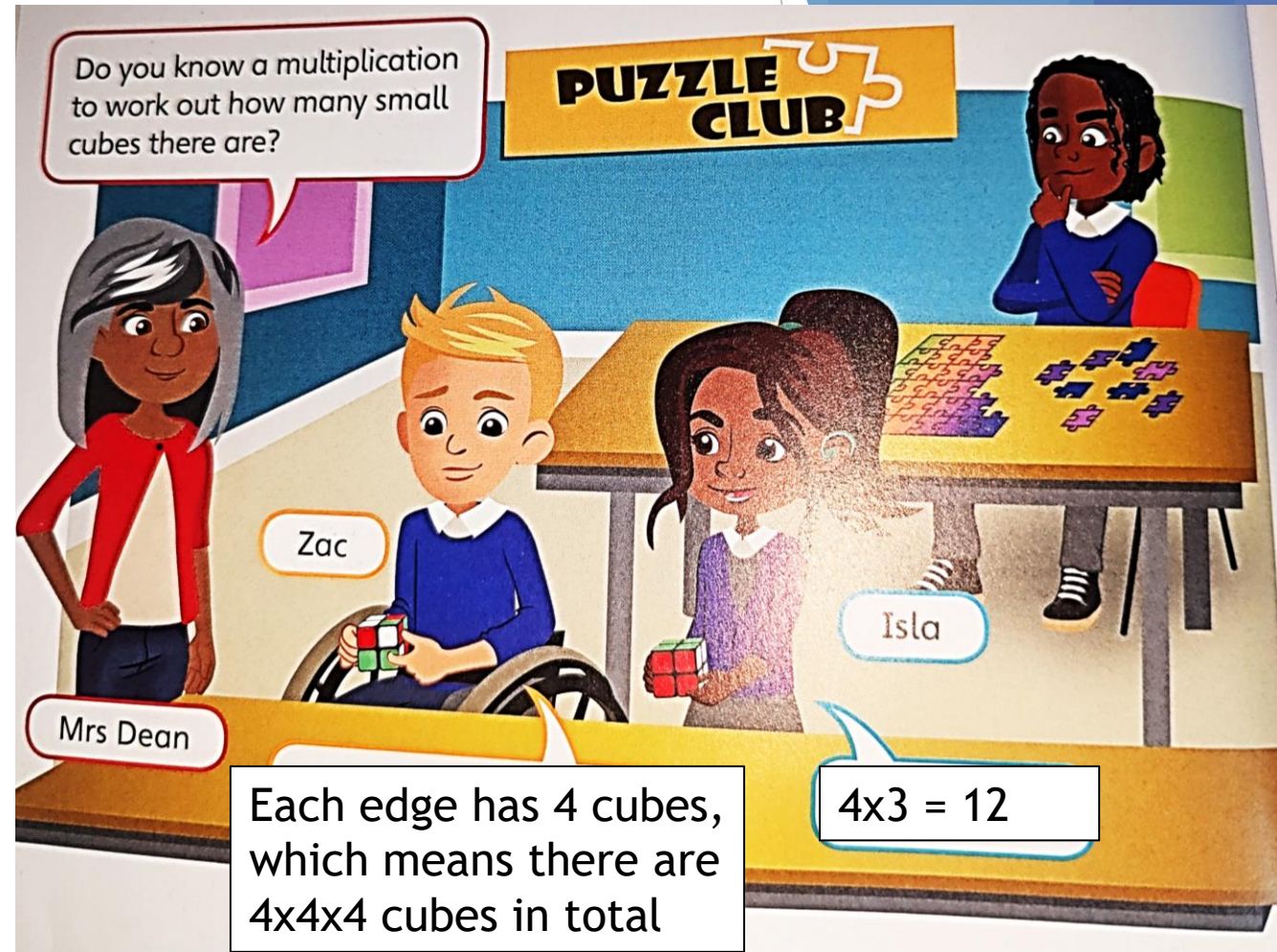
- ▶ How many small cubes make up the puzzle cube?
- ▶ What is Isla's mistake?



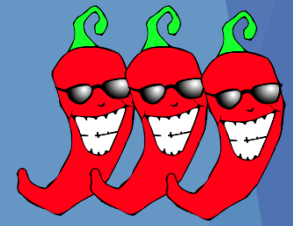
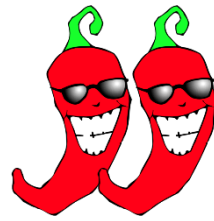
- ▶ They make a new cube and each edge has 3 cubes. How many smaller cubes are there all together?

Guided practice - Your turn

- ▶ How many small cubes make up the puzzle cube?
- ▶ What is Isla's mistake?



- ▶ They make a new cube and each edge has 5 cubes. How many smaller cubes are there all together?



Complete the table

3^3	$3 \times 3 \times 3$	
4^3		
5^3	$5 \times 5 \times 5$	
	$6 \times 6 \times 6$	
	$7 \times 7 \times 7$	
	$8 \times 8 \times 8$	
9^3		
10^3		
11^3		1331



Dive Deeper 1

1)

Rosie says,



5^3 is equal to 15

Do you agree?
Explain your answer.

3)

Teddy's age is a cube number.
Next year his age will be a square number.
How old is he now?

2)

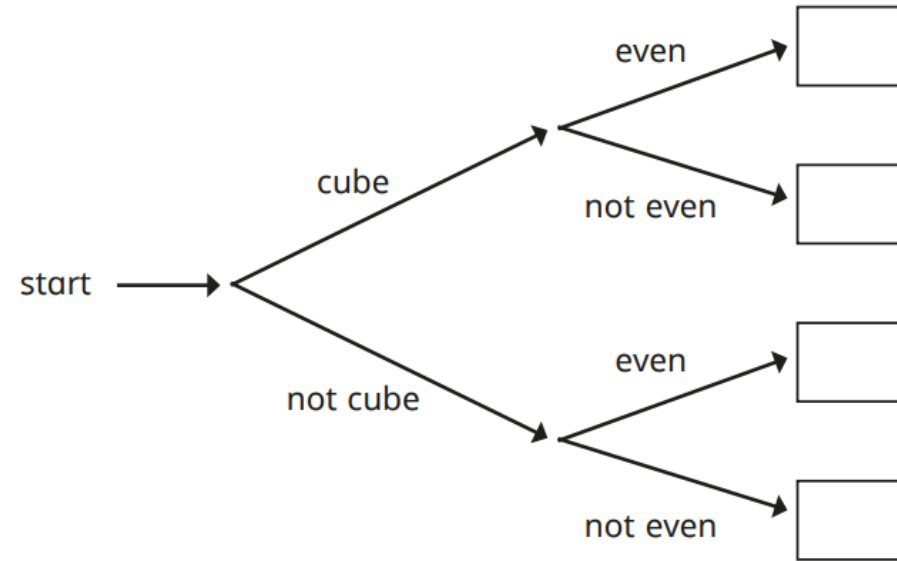
Use the numbers to complete the diagram.

8

45

60

125



4)

1^3 is 1, and
 3^3 is 9



What mistake do you think Kim has made?



Dive Deeper 2

1)

Here are 3 cards



On each card there is a cube number.
Use these calculations to find each number.

$$A \times A = B$$

$$B + B - 3 = C$$

$$\text{Digit total of } C = A$$

2)

Dora is thinking of a two-digit number that is both a square and a cube number.
What number is she thinking of?

3)

3b. Calculate then order from largest to smallest.

$$11^2 = 11 \times 11$$

$$3^2 = 3 \times 3$$

$$4^3 = 4 \times 4 \times 4$$

$$7^2 = 7 \times 7$$

4)

Omar is thinking of a cube number and a square number, both less than 50. Their difference is 2.

3. Which cube and square numbers is he thinking of?

5)

5. True or false?

The numbers below have been ordered from smallest to largest.

$$5^3$$

$$64$$

$$12^2$$

$$9^3$$