

Canonbury Home Learning

Year 6 Maths

Developing/ Expected/ Greater depth activity

Lesson 4

LO: TBAT identify patterns in number sequences.

Task: To complete a Beam activity relating to numbers and patterns.

Success Criteria:

- | |
|---|
| 1. Read the question. |
| 2. Recap your knowledge of odd and even numbers. |
| 3. Use the 100 square grid to support your answer, if needed. |
| 4. Apply your knowledge of times tables to find the Zodd and Zeven numbers. |

100 Square

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Square Numbers

1^2	$1 \times 1 =$	1
2^2	$2 \times 2 =$	4
3^2	$3 \times 3 =$	9
4^2	$4 \times 4 =$	16
5^2	$5 \times 5 =$	25
6^2	$6 \times 6 =$	36
7^2	$7 \times 7 =$	49
8^2	$8 \times 8 =$	64
9^2	$9 \times 9 =$	81
10^2	$10 \times 10 =$	100
11^2	$11 \times 11 =$	121
12^2	$12 \times 12 =$	144
13^2	$13 \times 13 =$	169
14^2	$14 \times 14 =$	196
15^2	$15 \times 15 =$	225

The product of a number multiplied by itself.
 e.g. $10 \times 10 = 100$
 which can be shown as:
 $10^2 = 100$
 10 squared = 100
 $10 \times 10 = 100$

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Task 1

Problem solving

Q1.

1 is both a square number and a cube number.
4 is a square number, but not a cube number.

What is the next number that is both a square number and a cube number?

Q2.

Here is a sorting diagram for numbers.

Write a number less than 100 in each space.

	even	not even
a cube number		
not a cube number		

Task 2

Arithmetic

1 $385 - 1 =$

2 $16 \div 1 =$

3 $8391 - 1000 =$

4
$$\begin{array}{r} 4567 \\ + 2451 \\ \hline \end{array}$$

5 $\frac{2}{7} + \frac{3}{7} =$

6 $476 + 19 - 371 =$

7 $24 \times 7 =$

Task 3

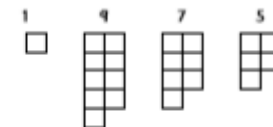
Beam Activity



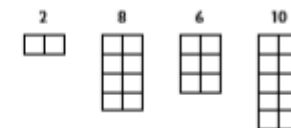
you need:
• squared paper

Odd and even puzzle

1. These are all odd numbers.

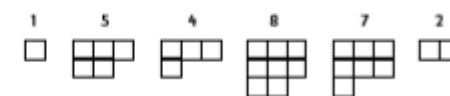


And these are all even.

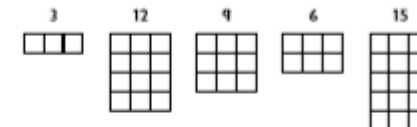


How many odd numbers are there below 100? And how many even?

2. On Planet Zog, these are Zodd numbers.



And these are Zeven.



Use squared paper to work out some more Zodd numbers, and some more Zeven ones.

3. How many Zodd numbers are there below 100? And how many Zeven ones?

Q3.

Find two **cube numbers** that total 152

$$\square + \square = 152$$

Q4.

Write a cross on the numbers that are not square numbers.

1^2 2^3 3^3 4^3 5^3