Name:

TICKETE

New Horizons Home Learning Term 1

Every completed activity worth a raffle ticket!

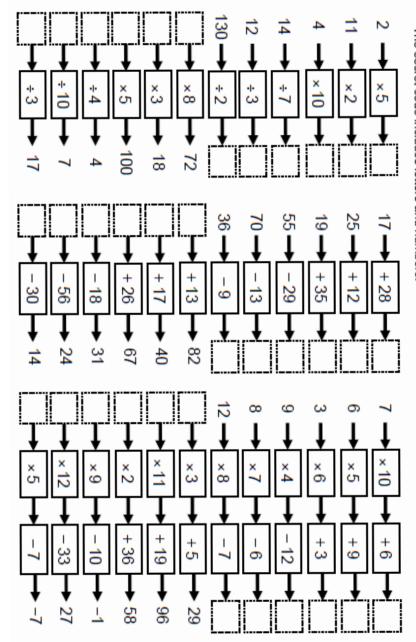
TICKET

Hand in by Friday 19 October



Function Machines: The Secret Code!

Calculate the missing outputs and inputs from the function machines below. For each of your answers, shade the corresponding number on the grid below to reveal the secret code. The secret code includes letters and numbers.



29	28	35	33	4
36	18	32	25	39
65	46	43	53	24
10	37	8	16	57
90	78	52	17	73
54	22	9	80	41
38	34	89	13	5
47	19	7	12	0
65	26	50	20	51
З	55	48	42	60
1	69	40	58	76
49	14	44	56	11
23	31	27	30	45
2	15	70	21	6

Maths: Key Stage 4

What is the next time they could have Ayesha's bus arrives every 16 minutes. Ayesha and Zain are both getting a bus at 10:00am. Zain's bus arrives every 14 minutes. both caught the bus? (3 marks)

Lucy and Ben are both getting a bus at Lucy's bus arrives every 12 minutes. Ben's bus arrives every 9 minutes What is the next time they could have bus arrives every 9 minutes both caught the bus? 9:00am. (3 marks)

- σ.ω Here is a list of numbers
- ∞ From this list, write down 15 25 28 30
- (a) a multiple of 7,
- (b) the two factors of 24,
- (c) a square number,
- (d) a prime number.

(4 marks)

4. This is a page from Zoe's exercise book

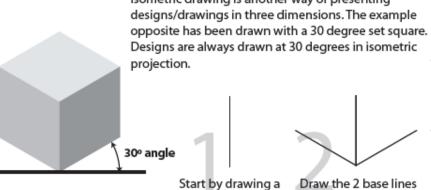
$$2^{3} - 1^{3} = 7$$
 (prime)
 $3^{3} - 2^{3} = 19$ (prime)
 $4^{3} - 3^{3} = 37$ (prime)

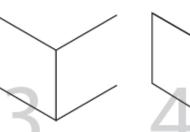
The difference between consecutive cube numbers is always a prime number.

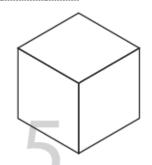
Give a counter example to show that Zoe is wrong. Justify your answer

ISOMETRIC PROJECTION

Isometric drawing is another way of presenting designs/drawings in three dimensions. The example Designs are always drawn at 30 degrees in isometric







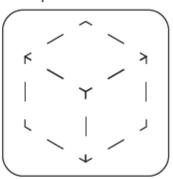
Start by drawing a straight vertical line at a 30° angle

Parallel to those draw 2 more 30° angle lines

Connect the angled lines with 2 straight vertical lines

Draw 2 final 30° lines to connect to box up

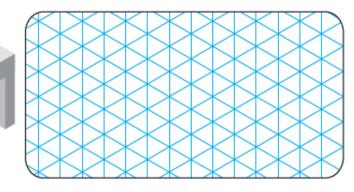
Draw over the dotted line to complete the cube



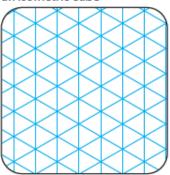
Draw on the missing lines to create an Isometric cube



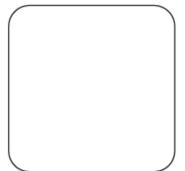
Draw the table you see below in the Isometric box next to it



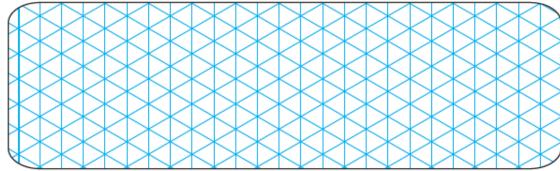
Use the Isometric grid to draw an Isometric cube



Draw an Isometric cube free hand



Using the Isometric box below try and write your name using Isometric Projection



Your Artists, Your Songs!

Write a list of your 5 favourite musicians, and your favourite song or lyrics by them.

Artist	Song/Lyrics

Food

Key Stage 3:	Key Stage 4:
Describe in detail the effects of malnutrition on the body make reference to diseases and affects of organs etc.	Write a menu for a sporting activity of your choice. Then write a full paragraph Justify the choices within your menu.

English: Key Stage 3

Imagine you are your favourite celebrity/sports person. Write a 1st person past tense diary entry (about 200 words) from their point of view 'A day in the life'

English: Key Stage 4

Choose your favourite place, real or imaginary, and describe it in 300 words.