

Maths Transition

This year has been different for all of us and unfortunately the Wootton Maths department hasn't been able to visit you at your school. We are however really excited to meet you and would like to get a snapshot of how you think mathematically before you come to Wootton upper in September. Therefore we would like you to do the investigation on the next slide.

Please can you produce a poster on one side of A3 with your name. We will collect these from your teacher and put them on display ready for when you start Wootton upper School.

Thanks

Wootton Maths Department

Opposite Corners Investigation

1. Choose a 3x3 square in the opposite grid
2. Multiply the numbers in the opposite corners
 $2 \times 24 = 48$ $4 \times 22 = 88$
3. Find the difference between the two answers
 $88 - 48 = 40$
4. Repeat for other squares, What do you notice?

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

Investigate Further

- Is the total always x ?
- How do you know?
- Can you prove it?
- What could you change in the investigation?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
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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
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91	92	93	94	95	96	97	98	99	100

Investigate Further - Hints

- Can you use algebra to prove it?
- Can you change the size of the square?
- Can you change the shape? Rectangle?
- Can you change the size of the grid?
- Other?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
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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
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Task

To produce a poster on A3 showing all your findings from the investigation.