

St. George's Day Multiplication Mosaic

Solve the calculations to reveal the hidden picture. Each answer has a special colour. Look at the number in each box, decide what it is a multiple of then colour in the highest value. For example, 18 is a multiple of 2, 3 and 9. As 9 is the highest value, the square would be coloured in red.

Blue = Multiple of 2 **Green** = Multiple of 3 **White** = Multiple of 5 **Black** = Multiple of 7 **Red** = Multiple of 9

76	94	58	38	8	81	74	36	44
68	44	2	26	82	12	52	93	4
16	62	86	46	87	6	57	69	88
92	32	96	15	35	40	50	56	20
14	69	49	48	78	33	3	51	12
39	33	6	66	24	27	39	93	39
63	55	54	25	90	5	33	66	4
57	24	78	51	3	6	12	93	32
68	8	82	94	22	3	87	24	62
34	86	2	46	64	39	96	48	58

Challenge: Which numbers below 10 are not included on the grid?

Could they be used on the grid? Explain your answer.

St. George's Day Multiplication Mosaic Answers

Solve the calculations to reveal the hidden picture. Each answer has a special colour.

Blue = Multiple of 2 | **Green** = Multiple of 3 | **White** = Multiple of 5 | **Black** = Multiple of 7 | **Red** = Multiple of 9

76	94	58	38	8	81	74	36	44
68	44	2	26	82	12	52	93	4
16	62	86	46	87	6	57	69	88
92	32	96	15	35	40	50	56	20
14	69	49	48	78	33	3	51	12
39	33	6	66	24	27	39	93	39
63	55	54	25	90	5	33	66	4
57	24	78	51	3	6	12	93	32
68	8	82	94	22	3	87	24	62
34	86	2	46	64	39	96	48	58

Challenge: Which numbers below 10 are not included on the grid?

1, 7 and 9 are not included in the grid. 7 could be used in the grid because it is a multiple of 7. 9 could be used in the grid because it is a multiple of 3 and 9. 1 could not be used in this grid because it is not a multiple of 2, 3, 5, 7 or 9.

St. George's Day Multiplication and Division Mosaic

Solve the calculations to reveal the hidden picture. Each answer has a special colour.

Dark grey = 12	Light grey = 15	White = 18	Red = 24	Light blue = 36	Dark blue = 42	Skin tone = 50		
12×3	3×4	$1800 \div 50$	4×9	3×5	$2 \times 3 \times 6$	1×36	1×36	$2 \times 2 \times 9$
$2 \times 2 \times 3 \times 3$	$12 \div 1$	2×18	$15 \div 1$	$165 \div 11$	$90 \div 6$	18×2	2×18	$108 \div 3$
$72 \div 2$	6×2	$75 \div 5$	$100 \div 2$	2×25	5×10	1×15	$720 \div 20$	$2 \times 6 \times 3$
$\frac{1}{5}$ of 180	$60 \div 5$	3×6	6×7	$150 \div 3$	14×3	2×9	$135 \div 9$	$360 \div 10$
$4 \times 3 \times 3$	12×1	25×2	$200 \div 4$	$50 \div 1$	$500 \div 10$	1×50	18×2	$1080 \div 30$
$72 \div 2$	$24 \div 2$	$\frac{1}{5}$ of 180	10×5	3×8	$250 \div 5$	12×3	3×12	$180 \div 5$
6×6	4×3	$4 \times 3 \times 3$	5×3	$150 \div 10$	$30 \div 2$	1×36	4×9	1×36
$48 \div 4$	$120 \div 10$	1×12	$105 \div 7$	$\frac{1}{5}$ of 75	$36 \div 2$	12×2	$90 \div 5$	$2 \times 9 \times 2$
4×9	2×6	$45 \div 3$	$\frac{1}{2}$ of 30	15×1	4×6	$48 \div 2$	8×3	$\frac{1}{4}$ of 144
$72 \div 2$	$36 \div 3$	1×36	$120 \div 8$	$60 \div 4$	9×2	$120 \div 5$	6×3	$3600 \div 100$

Challenge: I have one square left over that should be coloured in dark grey. List the questions that could be written in the box.

St. George's Day Multiplication Mosaic Answers

Solve the calculations to reveal the hidden picture. Each answer has a special colour.

Dark grey = 12	Light grey = 15	White = 18	Red = 24	Light blue = 36	Dark blue = 42	Skin tone = 50
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*Choice of skin tone will vary.

12×3	3×4	$1800 \div 50$	4×9	3×5	$2 \times 3 \times 6$	1×36	1×36	$2 \times 2 \times 9$
$2 \times 2 \times 3 \times 3$	$12 \div 1$	2×18	$15 \div 1$	$165 \div 11$	$90 \div 6$	18×2	2×18	$108 \div 3$
$72 \div 2$	6×2	$75 \div 5$	$100 \div 2^*$	$2 \times 25^*$	$5 \times 10^*$	1×15	$720 \div 20$	$2 \times 6 \times 3$
$\frac{1}{5}$ of 180	$60 \div 5$	$3 \times 6^*$	6×7	$150 \div 3^*$	14×3	$2 \times 9^*$	$135 \div 9$	$360 \div 10$
$4 \times 3 \times 3$	12×1	$25 \times 2^*$	$200 \div 4^*$	$50 \div 1^*$	$500 \div 10^*$	$1 \times 50^*$	18×2	$1080 \div 30$
$72 \div 2$	$24 \div 2$	$\frac{1}{5}$ of 180	$10 \times 5^*$	3×8	$250 \div 5^*$	12×3	3×12	$180 \div 5$
6×6	4×3	$4 \times 3 \times 3$	5×3	$150 \div 10$	$30 \div 2$	1×36	4×9	1×36
$48 \div 4$	$120 \div 10$	1×12	$105 \div 7$	$\frac{1}{5}$ of 75	$36 \div 2$	12×2	$90 \div 5$	$2 \times 9 \times 2$
4×9	2×6	$45 \div 3$	$\frac{1}{2}$ of 30	15×1	4×6	$48 \div 2$	8×3	$\frac{1}{4}$ of 144
$72 \div 2$	$36 \div 3$	1×36	$120 \div 8$	$60 \div 4$	9×2	$120 \div 5$	6×3	$3600 \div 100$

Challenge: I have one square left over that should be coloured in dark grey. List the questions that could be written in the box.

Accept any correct multiplication or division questions. For example, 1×12 , 2×6 , $12 \div 1$, $24 \div 2$, $\frac{1}{2}$ of 24, $\frac{1}{3}$ of 36.

St. George's Day Multiplication and Division Mosaic

Identify the properties of the numbers in the grid to reveal the hidden picture. Each answer has a special colour.

Green = Prime numbers

Red = Square numbers

Black = Numbers with 6 factors

Blue = Numbers with 4 factors

87	8	25	91	81	14	55	21	57
27	6	41	41	3	65	33	82	7
51	19	18	13	28	37	10	49	43
71	7	29	2	67	36	21	77	17
20	5	37	31	16	14	69	9	11
47	12	6	53	34	64	46	93	83
15	86	26	79	23	3	2	31	19
39	62	61	13	89	43	47	11	8
22	29	35	73	10	5	85	17	22
74	15	94	97	58	23	38	59	95

Challenge: Find 3 numbers less than 100 that are not in this grid and explain why.

St. George's Day Multiplication Mosaic **Answers**

Identify the properties of the numbers in the grid to reveal the hidden picture. Each answer has a special colour.

Green = Prime numbers

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Black = Numbers with 6 factors

Blue = Numbers with 4 factors

87	8	25	91	81	14	55	21	57
27	6	41	41	3	65	33	82	7
51	19	18	13	28	37	10	49	43
71	7	29	2	67	36	21	77	17
20	5	37	31	16	14	69	9	11
47	12	6	53	34	64	46	93	83
15	86	26	79	23	3	2	31	19
39	62	61	13	89	43	47	11	8
22	29	35	73	10	5	85	17	22
74	15	94	97	58	23	38	59	95

Challenge: Find 3 numbers less than 100 that are not in this grid and explain why.

24, 30, 40, 42, 54, 56, 66, 70, 78, 88, - have 8 factors

36, 48, 80, - have 10 factors

60, 72, 84, 90, 96 - have 12 factors

(1 and 4 could have been put on the grid as they are square numbers.)