

Emoji Multiplication Mosaic

0-40 = **yellow** 41-80 = **black** 81-120 = **white** 121+ = **blue**

8×10	11×7	5×8	3×7	5×8	4×5	6×3	6×8	9×5
6×12	$14 \div 1$	$36 \div 3$	7×2	9×2	$44 \div 4$	7×1	3×4	7×7
$36 \div 6$	12×10	9×10	9×12	$108 \div 12$	7×12	9×9	10×11	11×11
2×4	11×10	4×12	8×12	3×2	8×12	5×10	10×12	12×12
$15 \div 5$	10×10	9×11	10×11	5×2	8×11	10×9	10×10	$60 \div 12$
$18 \div 1$	4×5	3×4	4×4	$121 \div 11$	8×3	3×3	$96 \div 12$	5×1
$110 \div 11$	2×9	11×1	6×2	4×5	3×5	2×10	7×2	6×3
4×2	0×12	9×12	8×11	7×12	11×10	10×12	$63 \div 9$	$56 \div 8$
9×6	$30 \div 5$	12×8	10×10	9×9	10×9	9×11	$100 \div 10$	7×9
6×7	9×6	6×1	$24 \div 3$	$42 \div 7$	8×1	0×10	11×6	10×7

Challenge – Use the calculation $48 \div 12 = 4$ to write related multiplication and division facts. _____

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$36 \div 6$	12×10	9×10	9×12	$108 \div 12$	7×12	9×9	10×11	11×11
2×4	11×10	4×12	8×12	3×2	8×12	5×10	10×12	12×12
$15 \div 5$	10×10	9×11	10×11	5×2	8×11	10×9	10×10	$60 \div 12$
$18 \div 1$	4×5	3×4	4×4	$121 \div 11$	8×3	3×3	$96 \div 12$	5×1
$110 \div 11$	2×9	11×1	6×2	4×5	3×5	2×10	7×2	6×3
4×2	0×12	9×12	8×11	7×12	11×10	10×12	$63 \div 9$	$56 \div 8$
9×6	$30 \div 5$	12×8	10×10	9×9	10×9	9×11	$100 \div 10$	7×9
6×7	9×6	6×1	$24 \div 3$	$42 \div 7$	8×1	0×10	11×6	10×7

Challenge – Use the calculation $48 \div 12 = 4$ to write related multiplication and division facts. **$12 \times 4 = 48$, $4 \times 12 = 48$ and $48 \div 4 = 12$**

Emoji Multiplication Mosaic

0-20 = **yellow** 21-40 = **white** 41-60 = **black** 61+ = **pink**

8×6.4	5.2×10	0.5×6	3×2.4	2×4.1	0.4×9	6×2.4	7×6.6	10×5.7
6.2×7	2.8×5	12×0.7	1.5×6	10×0.3	4×2.6	0.1×7	3×2.5	5.5×9
0.4×10	5.4×4	12×2.5	6×5.2	4×2.7	10×3.4	4×4.5	12×2.8	0.3×6
5×1.8	10×3.9	12×4.3	2.6×10	10×0.8	6×4.5	9×5.2	3.2×8	6×3.2
8×2.4	5×5.2	7×3.6	5.3×6	0.2×7	11×2.8	4×9.1	3.7×10	4×0.9
6.3×10	8×7.9	8×2.4	0.2×10	2×3.8	7×2.6	3.1×4	10×6.8	9×7.2
7×10.3	10×7.3	1.2×5	6.3×2	0.5×10	8×1.6	0.7×10	9×7.5	10.5×7
0.3×10	4×2.2	7×2.4	5.4×10	5×8.5	11×4.5	3×5.3	2×6.3	1.5×4
12×4.8	9×1.2	9×2.1	2.8×3	8×2.1	11×0.3	4×3.6	7×1.8	7×8.2
5×8.5	10×5.6	0.8×11	2×6.7	10×0.1	1×4.5	1.4×9	11×4.6	6×7.2

Challenge – explain in your own words why $0.8 \times 100 = 8$ is incorrect. _____

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8×6.4	5.2×10	0.5×6	3×2.4	2×4.1	0.4×9	6×2.4	7×6.6	10×5.7
6.2×7	2.8×5	12×0.7	1.5×6	10×0.3	4×2.6	0.1×7	3×2.5	5.5×9
0.4×10	5.4×4	12×2.5	6×5.2	4×2.7	10×3.4	4×4.5	12×2.8	0.3×6
5×1.8	10×3.9	12×4.3	2.6×10	10×0.8	6×4.5	9×5.2	3.2×8	6×3.2
8×2.4	5×5.2	7×3.6	5.3×6	0.2×7	11×2.8	4×9.1	3.7×10	4×0.9
6.3×10	8×7.9	8×2.4	0.2×10	2×3.8	7×2.6	3.1×4	10×6.8	9×7.2
7×10.3	10×7.3	1.2×5	6.3×2	0.5×10	8×1.6	0.7×10	9×7.5	10.5×7
0.3×10	4×2.2	7×2.4	5.4×10	5×8.5	11×4.5	3×5.3	2×6.3	1.5×4
12×4.8	9×1.2	9×2.1	2.8×3	8×2.1	11×0.3	4×3.6	7×1.8	7×8.2
5×8.5	10×5.6	0.8×11	2×6.7	10×0.1	1×4.5	1.4×9	11×4.6	6×7.2

Challenge – explain in your own words why $0.8 \times 100 = 8$ is incorrect. **It is incorrect because when you multiply a number by 100, the digits move twice to the right, not once. So, $0.8 \times 100 = 80$**

Emoji Multiplication Mosaic

prime number = **yellow** square number = **black**

cube number = **blue** factors of 80 = **red**

25	49	7	19	11	59	41	144	36
100	11	73	61	31	47	13	97	100
79	9	36	121	17	81	25	49	31
47	27	1000	31	83	79	1331	125	61
73	125	11	17	97	41	29	512	23
59	216	59	67	7	73	11	125	17
67	343	3	10	80	20	89	1728	47
23	37	71	8	37	40	53	13	23
121	53	97	19	13	43	89	79	49
25	144	7	3	59	47	23	100	36

Challenge – What numbers under 100 are both square and cube numbers? _____

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prime number = **yellow** square number = **black**

cube number = **blue** factors of 80 = **red**

25	49	7	19	11	59	41	144	36
100	11	73	61	31	47	13	97	100
79	9	36	121	17	81	25	49	31
47	27	1000	31	83	79	1331	125	61
73	125	11	17	97	41	29	512	23
59	216	59	67	7	73	11	125	17
67	343	3	10	80	20	89	1728	47
23	37	71	8	37	40	53	13	23
121	53	97	19	13	43	89	79	49
25	144	7	3	59	47	23	100	36

Challenge – What numbers under 100 are both square and cube numbers? **1 and 64**