

Football-Themed Multiplication and Division Facts Mosaic

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

blue = 1 to 6	green = 7 to 12	red = 14 to 24	skin colour of your choice = 25 to 36	hair colour = 40 to 60	black = 63 to 100	white = 108 - 144
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$2 \div 2$	$12 \div 12$	$6 \div 3$	4×11	6×7	5×8	4×10	$18 \div 9$	$9 \div 3$
$27 \div 9$	1×4	2×2	5×9	7×9	5×5	8×8	$12 \div 3$	$40 \div 10$
$25 \div 5$	$60 \div 12$	6×8	4×12	3×9	4×7	3×10	1×6	2×3
$36 \div 6$	5×11	6×9	$48 \div 8$	$2 \div 2$	5×6	$12 \div 12$	$6 \div 3$	$18 \div 9$
$9 \div 3$	$27 \div 9$	1×4	2×7	3×5	2×8	4×4	2×9	2×2
$12 \div 3$	$40 \div 10$	4×8	$25 \div 5$	3×6	2×10	4×5	$60 \div 12$	3×11
1×6	2×3	5×7	$9 \div 3$	7×3	2×11	2×12	$36 \div 6$	3×12
$49 \div 7$	$77 \div 11$	1×8	2×4	4×9	$64 \div 8$	6×6	$72 \div 9$	1×9
6×11	9×12	3×3	$81 \div 9$	3×8	$108 \div 12$	4×6	1×10	2×5
11×11	7×10	$100 \div 10$	6×12	8×9	$120 \div 12$	11×7	8×10	$110 \div 10$

Challenge: List all of the possible multiplication calculations up to 12×12 that give the answer of 24?

Football-Themed Multiplication and Division Facts Mosaic Answers

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

blue = 1 to 6	green = 7 to 12	red = 14 to 24	skin colour of your choice = 25 to 36	hair colour = 40 to 60	black = 63 to 100	white = 108 - 144
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$2 \div 2$	$12 \div 12$	$6 \div 3$	4×11	6×7	5×8	4×10	$18 \div 9$	$9 \div 3$
$27 \div 9$	1×4	2×2	5×9	7×9	5×5	8×8	$12 \div 3$	$40 \div 10$
$25 \div 5$	$60 \div 12$	6×8	4×12	3×9	4×7	3×10	1×6	2×3
$36 \div 6$	5×11	6×9	$48 \div 8$	$2 \div 2$	5×6	$12 \div 12$	$6 \div 3$	$18 \div 9$
$9 \div 3$	$27 \div 9$	1×4	2×7	3×5	2×8	4×4	2×9	2×2
$12 \div 3$	$40 \div 10$	4×8	$25 \div 5$	3×6	2×10	4×5	$60 \div 12$	3×11
1×6	2×3	5×7	$9 \div 3$	7×3	2×11	2×12	$36 \div 6$	3×12
$49 \div 7$	$77 \div 11$	1×8	2×4	4×9	$64 \div 8$	6×6	$72 \div 9$	1×9
6×11	9×12	3×3	$81 \div 9$	3×8	$108 \div 12$	4×6	1×10	2×5
11×11	7×10	$100 \div 10$	6×12	8×9	$120 \div 12$	11×7	8×10	$110 \div 10$

Challenge: List all of the possible multiplication calculations up to 12×12 that give the answer of 24?

1×24 , 2×12 , 3×8 , 4×6 , 6×4 , 8×3 , 12×2 , 24×1

Football-Themed Multiplying Decimals Mosaic

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

blue = answer has 2 tenths	white = answer has 3 tenths	red = answer has 4 tenths	black = answer has 5 tenths	skin colour of your choice = answer has 6 tenths	green = answer has 7 tenths
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0.2×6	1.1×12	1.2×11	0.9×8	0.8×9	0.2×3	0.8×12	1.2×8	0.6×12
1.2×6	0.6×7	0.7×6	0.4×8	0.8×4	0.7×8	0.8×7	0.6×11	0.3×4
0.4×3	1.1×2	0.2×11	0.6×2	0.8×9	1.1×6	0.6×6	0.9×4	0.8×4
0.2×6	1.1×12	1.2×11	0.9×8	0.8×9	0.4×9	0.4×4	0.3×12	0.6×12
1.2×11	0.9×8	0.8×9	0.2×2	1.1×3	0.2×7	0.9×7	0.7×2	0.2×12
0.4×3	1.2×2	0.3×8	0.8×3	0.7×9	0.4×6	0.3×11	0.6×4	0.4×11
1.1×4	0.6×9	0.9×6	0.7×12	1.1×3	1.2×7	0.8×8	0.9×7	1.2×12
0.7×2	0.2×12	1.2×2	0.3×8	0.8×3	0.7×9	0.4×6	0.7×9	1.1×4
0.5×3	1.1×5	0.5×11	0.9×5	0.5×9	0.5×7	0.7×5	0.5×5	0.5×3
1.1×5	0.9×3	0.9×5	0.7×11	0.5×7	1.1×7	0.5×5	0.3×9	0.7×5

Challenge: Explain how the following calculations are related:

$$2 \times 7 = 14$$

$$0.02 \times 7 = 0.14$$

$$2 \times 0.7 = 1.4$$

Football-Themed Multiplying Decimals Mosaic Answers

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

blue = answer has 2 tenths	white = answer has 3 tenths	red = answer has 4 tenths	black = answer has 5 tenths	skin colour of your choice = answer has 6 tenths	green = answer has 7 tenths
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0.2×6	1.1×12	1.2×11	0.9×8	0.8×9	0.2×3	0.8×12	1.2×8	0.6×12
1.2×6	0.6×7	0.7×6	0.4×8	0.8×4	0.7×8	0.8×7	0.6×11	0.3×4
0.4×3	1.1×2	0.2×11	0.6×2	0.8×9	1.1×6	0.6×6	0.9×4	0.8×4
0.2×6	1.1×12	1.2×11	0.9×8	0.8×9	0.4×9	0.4×4	0.3×12	0.6×12
1.2×11	0.9×8	0.8×9	0.2×2	1.1×3	0.2×7	0.9×7	0.7×2	0.2×12
0.4×3	1.2×2	0.3×8	0.8×3	0.7×9	0.4×6	0.3×11	0.6×4	0.4×11
1.1×4	0.6×9	0.9×6	0.7×12	1.1×3	1.2×7	0.8×8	0.9×7	1.2×12
0.7×2	0.2×12	1.2×2	0.3×8	0.8×3	0.7×9	0.4×6	0.7×9	1.1×4
0.5×3	1.1×5	0.5×11	0.9×5	0.5×9	0.5×7	0.7×5	0.5×5	0.5×3
1.1×5	0.9×3	0.9×5	0.7×11	0.5×7	1.1×7	0.5×5	0.3×9	0.7×5

Challenge: Explain how the following calculations are related:

$$2 \times 7 = 14$$

$$0.02 \times 7 = 0.14$$

$$2 \times 0.7 = 1.4$$

Accept answers that explain how the calculations are related facts to different powers of ten.

Football-Themed Multiples and Prime Numbers Mosaic

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

blue =
multiples of 4

green =
multiples of 7

yellow =
prime numbers

black =
multiples of 9

4	100	96	2	41	67	88	60	16
92	7	47	29	37	71	59	3	32
79	20	31	17	19	61	73	40	13
5	44	53	97	43	11	83	24	89
16	23	7	47	29	37	71	59	52
80	68	104	17	19	61	60	64	8
4	100	96	20	2	88	60	16	52
21	91	91	77	67	70	14	42	35
35	21	14	19	61	73	35	14	91
91	77	81	18	45	90	54	21	14

Challenge: Find all of the two-digit numbers that are multiples of 4 and 9.

Football-Themed Multiples and Prime Numbers Mosaic **Answers**

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

blue =
multiples of 4

green =
multiples of 7

yellow =
prime numbers

black =
multiples of 9

4	100	96	2	41	67	88	60	16
92	7	47	29	37	71	59	3	32
79	20	31	17	19	61	73	40	13
5	44	53	97	43	11	83	24	89
16	23	7	47	29	37	71	59	52
80	68	104	17	19	61	60	64	8
4	100	96	20	2	88	60	16	52
21	91	91	77	67	70	14	42	35
35	21	14	19	61	73	35	14	91
91	77	81	18	45	90	54	21	14

Challenge: Find all of the two-digit numbers that are multiples of 4 and 9.

36 and 72