Football-Themed ×2 Multiplication and Division Facts Mosaic

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

kit colour of your choice	**hair colour of your choice**	**skin colour of your choice**	**blue**	**green**	**black**
0-4	6	8-10	11 and 12	14 to 20	22 and 24

				12 ÷ 2	3 × 2	2 × 3		
				22 ÷ 2	4 × 2	6 × 2		
				18 ÷ 2	20 ÷ 2	16 ÷ 2		
					4 × 2			
			1 × 2	0 × 2	8 ÷ 2	2 × 1	0 × 2	
		5 × 2		2 × 2	4 ÷ 2	2 × 2		20 ÷ 2
		2 × 5		2 ÷ 2	8 ÷ 2	6 ÷ 2		18 ÷ 2
7 × 2	2 × 9	8 × 2	2 × 10	2 × 4	2 × 7	16 ÷ 2	10 × 2	8 × 2
2 × 12		2 × 8	9 × 2	4 ÷ 2	2 × 8	1 × 2	7 × 2	9 × 2
	2 × 11	10 × 2	11 × 2	12 × 2	2 × 9	2 × 12	2 × 11	2 × 10

Challenge: 6 × 2 = 2 × 6
Is this right? Prove it.

Football-Themed ×2 Multiplication and Division Facts Mosaic **Answers**

kit colour of your choice 0-4	**hair colour of your choice** 6	**skin colour of your choice** 8-10	**blue** 11 and 12	**green** 14 to 20	**black** 22 and 24

				12 ÷ 2	3 × 2	2 × 3		
				22 ÷ 2	4 × 2	6 × 2		
				18 ÷ 2	20 ÷ 2	16 ÷ 2		
					4 × 2			
			1 × 2	0 × 2	8 ÷ 2	2 × 1	0 × 2	
		5 × 2		2 × 2	4 ÷ 2	2 × 2		20 ÷ 2
		2 × 5		2 ÷ 2	8 ÷ 2	6 ÷ 2		18 ÷ 2
7 × 2	2 × 9	8 × 2	2 × 10	2 × 4	2 × 7	16 ÷ 2	10 × 2	8 × 2
2 × 12		2 × 8	9 × 2	4 ÷ 2	2 × 8	1 × 2	7 × 2	9 × 2
	2 × 11	10 × 2	11 × 2	12 × 2	2 × 9	2 × 12	2 × 11	2 × 10

Challenge: 6 × 2 = 2 × 6

Is this right? Prove it.

Yes, because multiplication is commutative.

Football-Themed ×5 Multiplication and Division Facts Mosaic

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

green 0-10 **yellow or gold** 11-40 **black** 45-60

			6 × 5	55 ÷ 5	5 × 6			
	4 × 5	5 × 5	55 ÷ 5	5 × 5	55 ÷ 5	5 × 8	60 ÷ 5	
60 ÷ 5		60 ÷ 5	3 × 5	4 × 5	5 × 7	3 × 5		3 × 5
5 × 5		5 × 5	5 × 6	5 × 5	5 × 3	60 ÷ 5		5 × 4
	55 ÷ 5	7 × 5	5 × 7	8 × 5	5 × 8	5 × 5	55 ÷ 5	
			60 ÷ 5	55 ÷ 5	60 ÷ 5			
				60 ÷ 5				
15 ÷ 5	50 ÷ 5	10 ÷ 5	5 ÷ 5	55 ÷ 5	0 × 5	45 ÷ 5	5 × 2	2 × 5
20 ÷ 5	5 × 2	30 ÷ 5	7 × 5	60 ÷ 5	8 × 5	5 × 1	45 ÷ 5	1 × 5
35 ÷ 5	25 ÷ 5	11 × 5	12 × 5	9 × 5	10 × 5	5 × 12	50 ÷ 5	40 ÷ 5

Challenge: 50 ÷ 5 = 5 ÷ 50
Is this right? Prove it.

Football-Themed ×5 Multiplication and Division Facts Mosaic **Answers**

green 0-10 | **yellow or gold** 11-40 | **black** 45-60

			6 × 5	55 ÷ 5	5 × 6			
	4 × 5	5 × 5	55 ÷ 5	5 × 5	55 ÷ 5	5 × 8	60 ÷ 5	
60 ÷ 5		60 ÷ 5	3 × 5	4 × 5	5 × 7	3 × 5		3 × 5
5 × 5		5 × 5	5 × 6	5 × 5	5 × 3	60 ÷ 5		5 × 4
	55 ÷ 5	7 × 5	5 × 7	8 × 5	5 × 8	5 × 5	55 ÷ 5	
			60 ÷ 5	55 ÷ 5	60 ÷ 5			
				60 ÷ 5				
15 ÷ 5	50 ÷ 5	10 ÷ 5	5 ÷ 5	55 ÷ 5	0 × 5	45 ÷ 5	5 × 2	2 × 5
20 ÷ 5	5 × 2	30 ÷ 5	7 × 5	60 ÷ 5	8 × 5	5 × 1	45 ÷ 5	1 × 5
35 ÷ 5	25 ÷ 5	11 × 5	12 × 5	9 × 5	10 × 5	5 × 12	50 ÷ 5	40 ÷ 5

Challenge: 50 ÷ 5 = 5 ÷ 50

Is this right? Prove it.

No, because division is not commutative. You cannot divide 5 by 50 and get a whole number.

Football-Themed ×10 Multiplication and Division Facts Mosaic

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

eye colour of your choice 0 to 5	**green** 6-30	**skin colour of your choice** 40-70	**hair colour of your choice** 80-90	**black** 100-110	**red** 120

		8 × 10	9 × 10	10 × 8				
		50 ÷ 10	4 × 10	30 ÷ 10			12 × 10	
		5 × 10	12 × 10	10 × 5			10 × 12	
			10 × 4				10 × 6	
	11 × 10	10 × 10	10 × 11	11 × 10	10 × 10		10 × 10	
11 × 10		10 × 10	11 × 10	10 × 11		11 × 10		
6 × 10	60 ÷ 10	11 × 10	10 × 10	10 × 11	60 ÷ 10	70 ÷ 10	1 × 10	110 ÷ 10
1 × 10	10 × 2	10 × 10	3 × 10	10 × 10	80 ÷ 10	2 × 10	110 ÷ 10	100 ÷ 10
80 ÷ 10	2 × 10	7 × 10	90 ÷ 10	10 × 7	120 ÷ 10	100 ÷ 10	3 × 10	10 × 3
10 × 1	10 × 10	11 × 10	10 × 3	10 × 11	11 × 10	70 ÷ 10	120 ÷ 10	90 ÷ 10

Challenge: What happens to a number when it is multiplied by 10?

Football-Themed ×10 Multiplication and Division Facts Mosaic **Answers**

eye colour of your choice 0 to 5	**green** 6-30	**skin colour of your choice** 40-70	**hair colour of your choice** 80-90	**black** 100-110	**red** 120

		8 × 10	9 × 10	10 × 8				
		50 ÷ 10	4 × 10	30 ÷ 10			12 × 10	
		5 × 10	12 × 10	10 × 5			10 × 12	
			10 × 4				10 × 6	
	11 × 10	10 × 10	10 × 11	11 × 10	10 × 10		10 × 10	
11 × 10		10 × 10	11 × 10	10 × 11		11 × 10		
6 × 10	60 ÷ 10	11 × 10	10 × 10	10 × 11	60 ÷ 10	70 ÷ 10	1 × 10	110 ÷ 10
1 × 10	10 × 2	10 × 10	3 × 10	10 × 10	80 ÷ 10	2 × 10	110 ÷ 10	100 ÷ 10
80 ÷ 10	2 × 10	7 × 10	90 ÷ 10	10 × 7	120 ÷ 10	100 ÷ 10	3 × 10	10 × 3
10 × 1	10 × 10	11 × 10	10 × 3	10 × 11	11 × 10	70 ÷ 10	120 ÷ 10	90 ÷ 10

Challenge: What happens to a number when it is multiplied by 10? **It becomes ten times bigger which is shown by adding a zero.**

Football-Themed ×2, ×5 and ×10 Multiplication and Division Facts Mosaic

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

green
0-19

black
20-120

100 ÷ 10	18 ÷ 2			5 × 10	4 × 10		25 ÷ 5	110 ÷ 10
35 ÷ 5	7 × 5			5 × 9	10 × 2			16 ÷ 2
10 × 5					11 × 2	6 × 5		
7 × 10					6 × 10	10 × 10		5 × 11
4 × 5								6 × 5
		5 × 10	12 × 10	10 × 5				11 × 2
	7 × 5	12 × 5	3 × 10	11 × 5				
	3 × 10	11 × 10	10 × 5			5 × 5		
22 ÷ 2						10 × 5	5 × 6	30 ÷ 10
90 ÷ 10	15 ÷ 5	4 × 10			12 × 2	4 × 5	10 ÷ 5	120 ÷ 10

Challenge: Write as many multiplication and division sentences as you can, using the numbers: 3, 5 and 15. How will you know you have found all the possibilities?

Football-Themed ×2, ×5 and ×10 Multiplication and Division Facts Mosaic

Answers

green
0-19

black
20-120

100 ÷ 10	18 ÷ 2			5 × 10	4 × 10		25 ÷ 5	110 ÷ 10
35 ÷ 5	7 × 5			5 × 9	10 × 2			16 ÷ 2
10 × 5					11 × 2	6 × 5		
7 × 10					6 × 10	10 × 10		5 × 11
4 × 5								6 × 5
		5 × 10	12 × 10	10 × 5				11 × 2
	7 × 5	12 × 5	3 × 10	11 × 5				
	3 × 10	11 × 10	10 × 5			5 × 5		
22 ÷ 2						10 × 5	5 × 6	30 ÷ 10
90 ÷ 10	15 ÷ 5	4 × 10			12 × 2	4 × 5	10 ÷ 5	120 ÷ 10

Challenge: Write as many multiplication and division sentences as you can, using the numbers: 3, 5 and 15. How will you know you have found all the possibilities?

3 × 5 = 15, 5 × 3 = 15, 15 ÷ 5 = 3, 15 ÷ 3 = 5