

Long Division- Chunking Method

1)

$$264 \div 12 =$$

Lay out the calculation using the bus stop method:

1	2	2	6	4

Write out the multiples of the number

1 – 12

2- 24

3- 36

3)

We are still left with 144 so we can subtract another 'chunk' – or group – of 12. Let's subtract 120 again and write the multiplication by the side.

1	2	2	6	4
	-	1	2	0
		1	4	4
	-	1	2	0
		2	4	

(10 × 12)

(10 × 12)

2)

Next, we're going to subtract a multiple of the divisor (the number outside the bus stop). In this example, we have subtracted 120 (which is 10×12) from 264. We write 120 below 264 and complete the subtraction leaving an answer of 144. At the side of the calculation, we write the number of divisors we have subtracted (in this case 10 lots of 12 or 10×12).

1	2	2	6	4
	-	1	2	0
		1	4	4

(10 × 12)

4)

We are now left with 24. Let's think of another group ('chunk') of 12s that we can subtract. We can now subtract 24 (which is 2×12).

1	2	2	6	4
	-	1	2	0
		1	4	4
	-	1	2	0
		2	4	
	-	2	4	
		0		

(10 × 12)

(10 × 12)

(2 × 12)

We cannot subtract any more 12s as the answer is 0. We now need to calculate the total amount of 12s we subtracted from 264. We used one group of 10 twelves, another group of 10 and a group of 2 twelves ($10 + 10 + 2$). Altogether, we subtracted 22 twelves from 264. Therefore, $264 \div 12 = 22$.