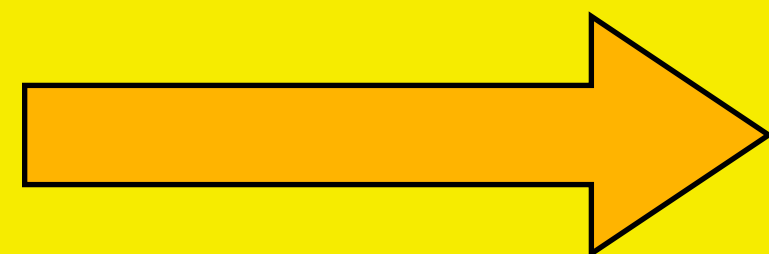


Choosing Methods

Learning Objective:

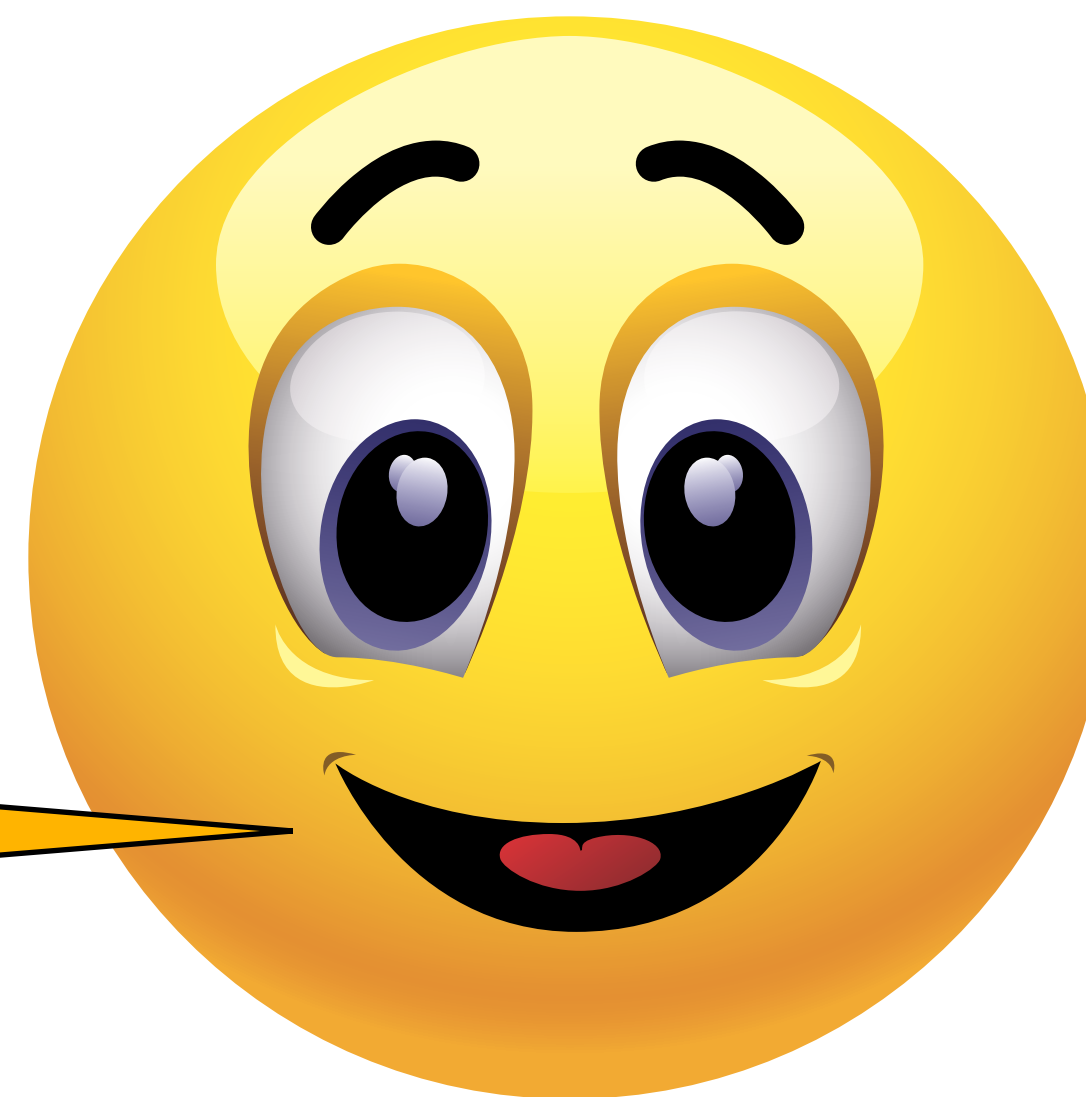
To practise different multiplication and division methods.





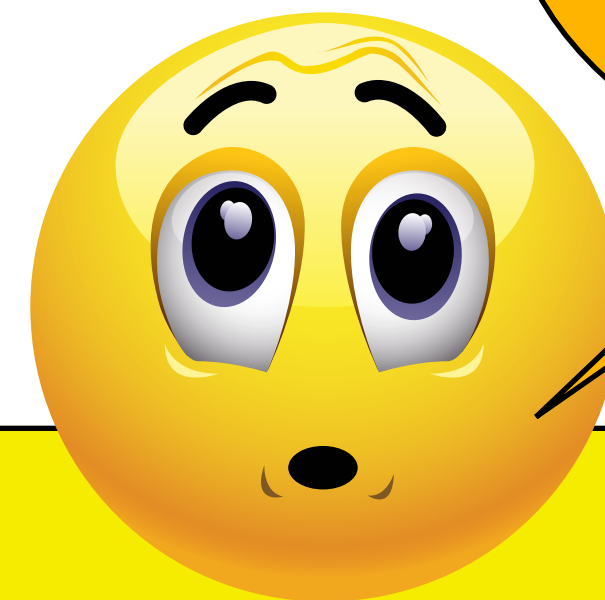
Have a look at the
multiplication problem on the
next slide.

Can you solve it?



$$5,241 \times 25$$

What
method will you
use?



$$5,241 \times 25 = 131,025$$

The grid
method

The expanded
method

The long
multiplication
method



Did you get the answer right? Click on each method to see how this problem was solved!

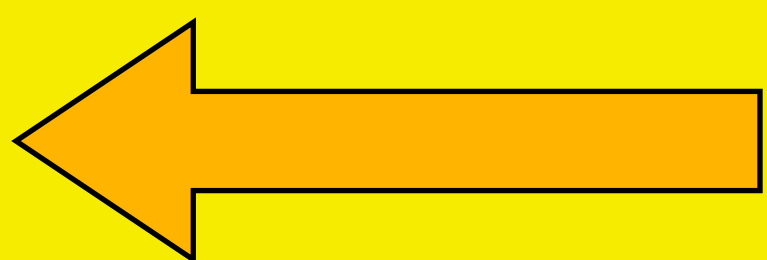
The grid method

$$5,241 \times 25 = 131,1025$$

\times	5,000	200	40	1
20	100,000	4,000	800	20
5	25,000	1,000	200	5

$$\begin{array}{r} 100000 \\ 40000 \\ 8000 \\ 200 \\ 25000 \\ 10000 \\ 2000 \\ + 5 \\ \hline 131025 \\ \hline \end{array}$$

1 1



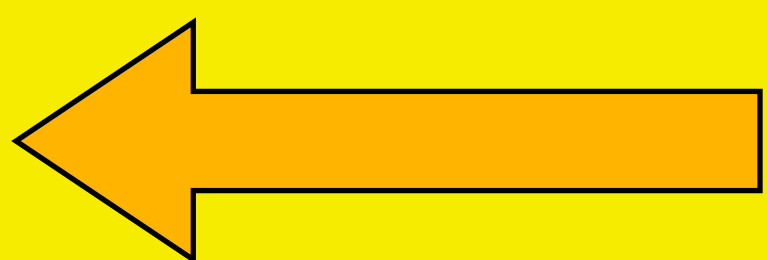
$$5,241 \times 25 = 131,1025$$

The expanded method

The long multiplication method

			5	2	4	1	
	x				2	5	
							5
					2	0	0
			1	0	0	0	0
	2	5	0	0	0	0	
					2	0	
				8	0	0	
			4	0	0	0	
	1	0	0	0	0	0	
	1	3	1	0	2	5	
			1	1			

			5	2	4	1	
	x				2	5	
		2	6	2	0	5	
			1	2			
	1	0	4	8	2	0	
	1	3	1	0	2	5	
			1	1			





Can you solve
this multiplication problem using the
long multiplication method?

$$841 \times 36$$

$$841 \times 36 = 30,276$$

The answer is 30,276.
Did you get it right?



				8	4	1	
					3	6	
				<hr/>			
			5	0	4	6	
				²			
	2	5	2	3	0		
			¹				
	3	0	2	7	6		
			¹				
				<hr/>			



Can you solve
this multiplication problem using the
long multiplication method?

$$3,259 \times 50$$

$$3,259 \times 50 = 162,950$$

Why do the digits in this row all have a value of zero?

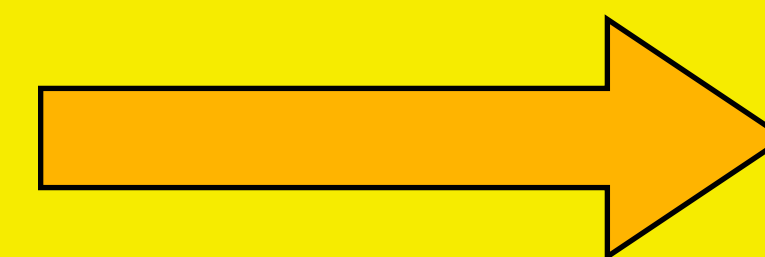
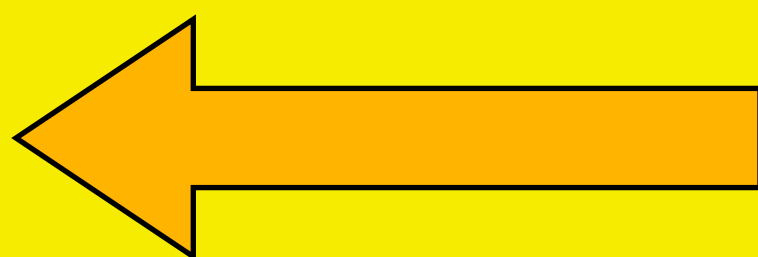
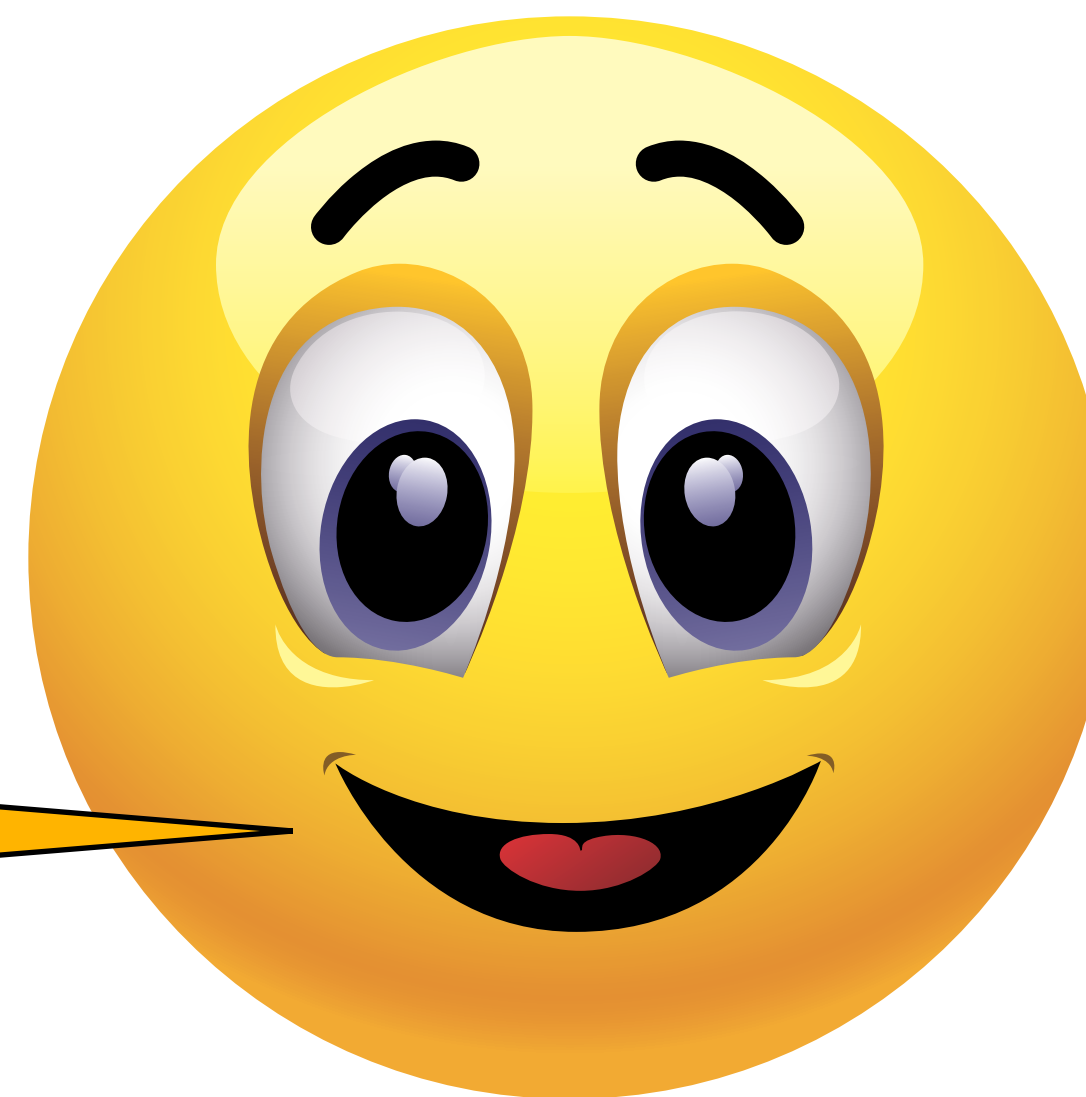


			3	2	5	9	
					5	0	
					0	0	0
	1	6	2	9	5	0	
		1	2	4			
	1	6	2	9	5	0	
		1					



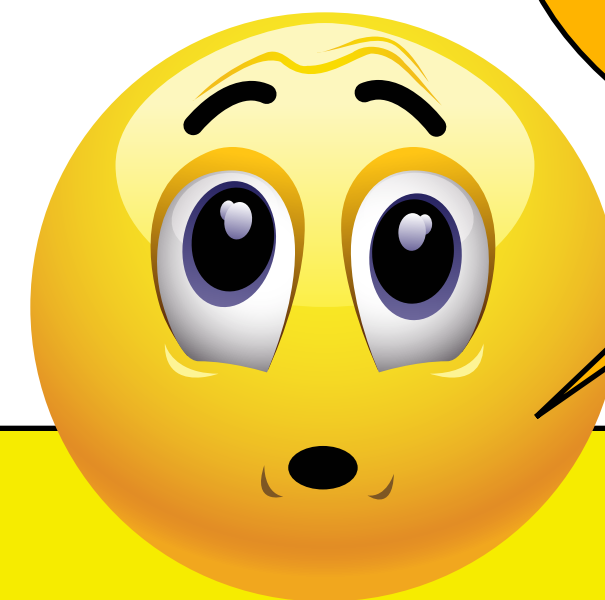
Have a look at the division problem on the next slide.

Can you solve it?

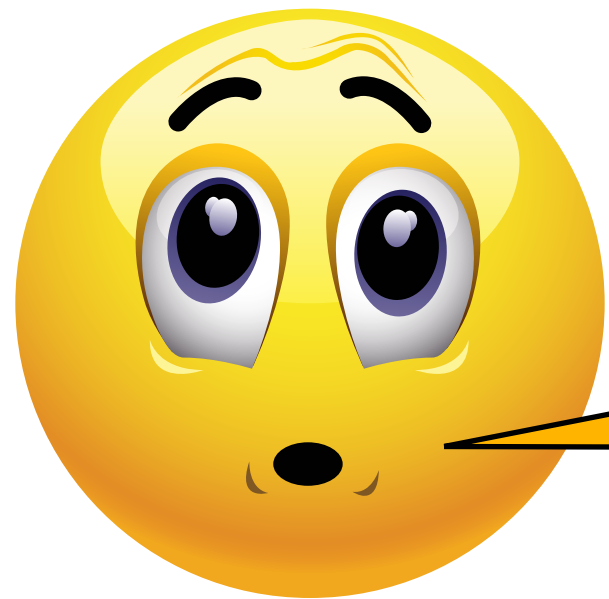


$$7,605 \div 5$$

What
method will you
use?



$$7,605 \div 5 = 1,521$$



Did you get the answer right?
Did you use either of these methods?

The chunking
method

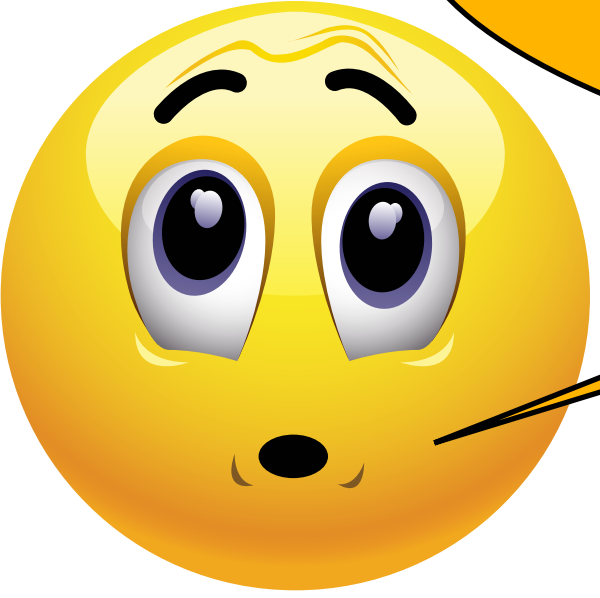
The short
division method

$$7,605 \div 5 = 1521$$

The short division method

The chunking method

		1	5	2	1	
5	7	6	0	5		
-	5	0	0	0	(1000 × 5)	
	2	6	0	5		
-	2	0	0	0	(400 × 5)	
		6	0	5		
	-	5	0	0	(100 × 5)	
		1	0	5		
	-	1	0	0	(20 × 5)	
				5	(1 × 5)	



Can you solve this
division problem using the short division
method?

$$395 \div 7$$

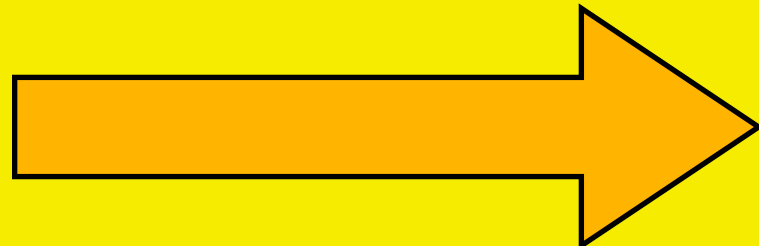
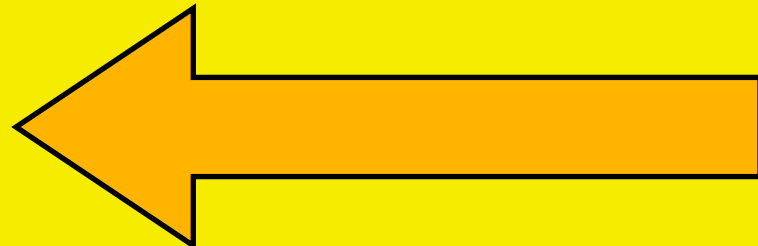
$$395 \div 7 = 56 \text{ r}3$$

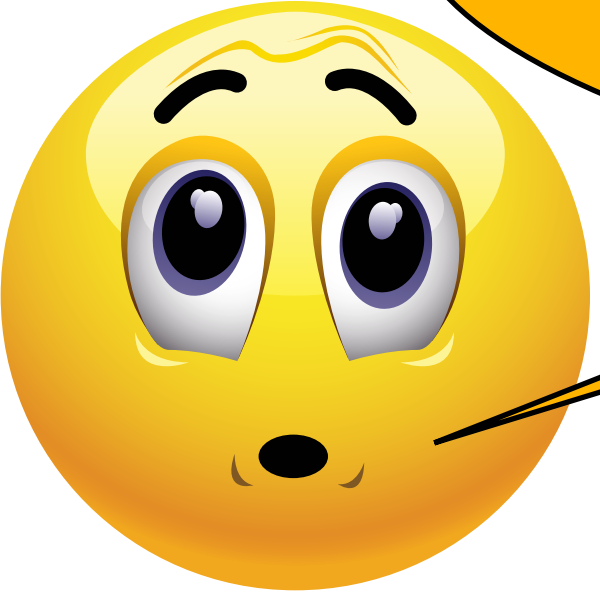
			5	6	r3
7	3	9	⁴ 5		

The short division method

The chunking method

				5	6	r3		
7	3	9	5					
-	3	5	0				(50 x 7)	
			4	5				
-			4	2			(6 x 7)	
				3				





Can you solve this
division problem using the short division
method?

$$6,164 \div 9$$

$$6,164 \div 9 = 684 \text{ r}$$

The short division method

The chunking method

			6	8	4	r8
9	5 6	¹ 1	6	4		
-	5	4	0	0	(600 × 9)	
			7	6	4	
-	7	2	0		(80 × 9)	
				3 4	¹ 4	
	-	3	6		(4 × 9)	
				8		