

How many of these can you read correctly?

23 402

0.003

7.674

1 000 000

3 890 201

605 341

page 355, ex 4

Adding and Subtracting Decimals

Keep the decimal points underneath each other!

$2.34 + 83.1$

$$\begin{array}{r} 2.34 \\ 83.10 \\ \hline 85.44 \end{array}$$

$52.67 - 3.083$

$$\begin{array}{r} 52.670 \\ - 3.083 \\ \hline 49.587 \end{array}$$

$1. 5.64 + 2.431$

$$\begin{array}{r} 5.64 \\ 2.431 \\ \hline 8.071 \end{array}$$

$$\begin{array}{r} 56.80 \\ - 32.71 \\ \hline 24.09 \end{array}$$

$2. 56.8 - 32.71$

$3. 120 + 3.5601$



This one is hard!
Take it slowly!

$4. 12 - 4.5$

$$\begin{array}{r} 3) 120 \\ 3.5601 \\ \hline 123.5601 \end{array} \quad \begin{array}{r} 12.0 \\ - 4.5 \\ \hline 7.5 \end{array}$$

$5. 54.97 + 23.865$

$6. 12.01 - 7.945$

Using Decimals to solve problems.

Find the total length of two snakes put end to end if the mother is 1m 3cm and the baby 9.5 cm.

$$\begin{array}{r} 103.0 \\ + 9.5 \\ \hline \end{array}$$

What is the difference in their lengths?

$$\begin{array}{r} 103.0 \\ - 9.5 \\ \hline \end{array}$$

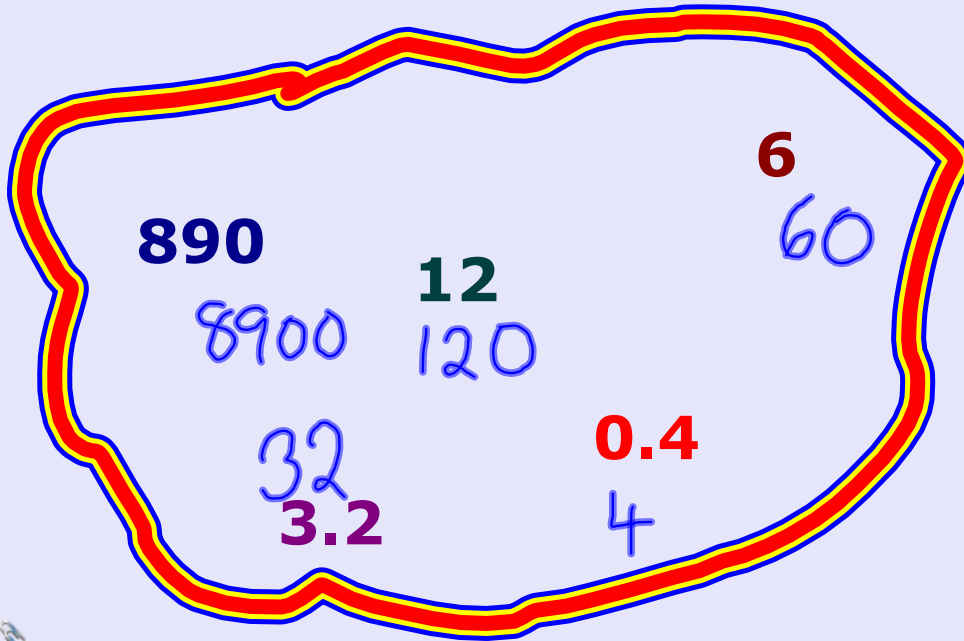
$$\underline{112.5 \text{ cm}}$$

$$103 - 9.5$$

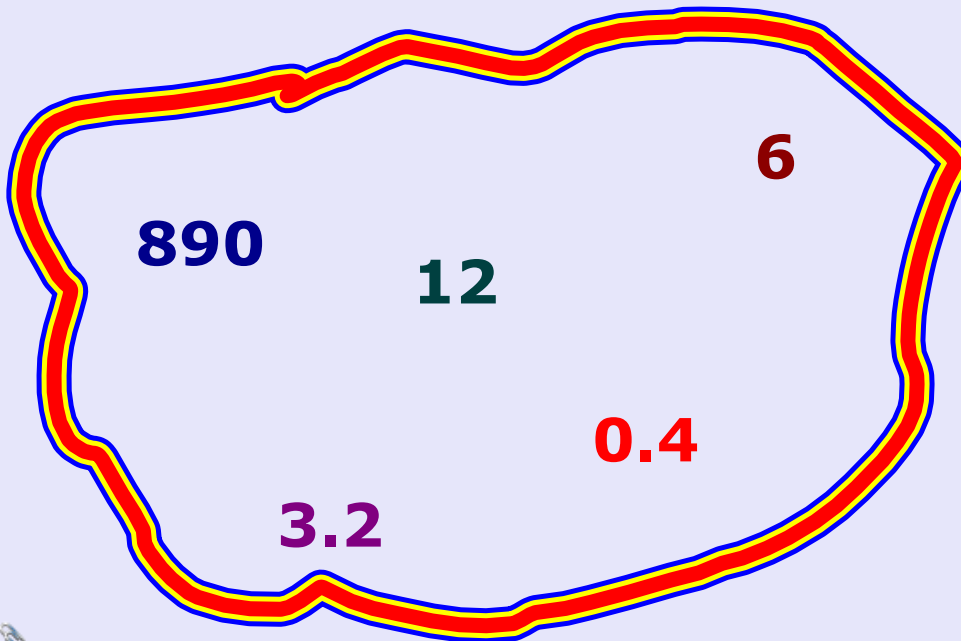
If I chopped the mother into 20 equal parts how long would each part be?

If the mother had 11 babies all 9.5cm and they were placed alongside her, end-to-end, would they be longer or shorter than her?

Multiplying by 10, 100 etc



Dividing by 10, 100 etc



Work out as many of these as you can.

$$44 \div 10 = 4.4$$

$$48 \div 100 = 0.48$$

$$45 \div 100 = 0.45$$

$$0.3 \times 100 = 30$$

$$7 \div 100 = 0.07$$

$$36 \times 200 = 7200$$

$$44 \times 1000$$

$$= 44000$$

Families of sums

Multiplying with decimals

$$2.3 \times 6 = 13.8$$

$$23 \times 6 = 138$$

$$\begin{array}{r} x \quad | \quad 20 \quad 3 \\ \hline 6 \quad | \quad 120 \quad 18 \\ \quad \quad + 18 \\ \hline \quad \quad 138 \end{array}$$

23

$$2.3 \times 16 = 36.8$$

$$\begin{array}{r} \quad \quad | \quad 20 \quad 3 \\ \hline 10 \quad | \quad 200 \quad 30 \\ \quad \quad | \quad 120 \quad 18 \\ \hline \quad \quad | \quad 320 \quad 48 \end{array}$$

$$\begin{array}{r} 320 \\ 48 \\ \hline 368 \end{array}$$

$$5.4 \times 23 = 124.2$$

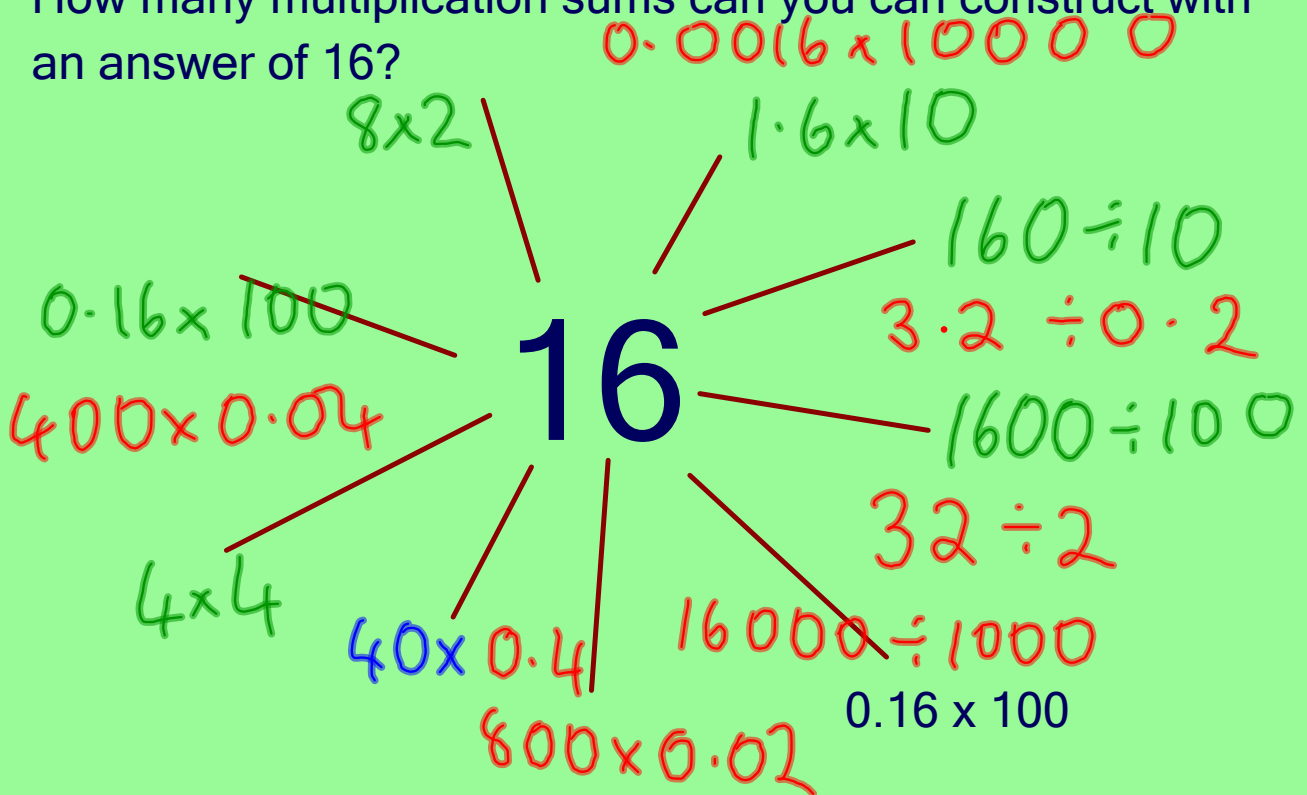
$$54 \times 23$$

$$\begin{array}{r} \quad \quad | \quad 50 \quad 4 \\ \hline 20 \quad | \quad 1000 \quad 80 \\ \quad \quad | \quad 150 \quad 12 \\ \hline \quad \quad | \quad 1150 \quad 92 \\ \quad \quad \quad 92 \\ \hline \quad \quad \quad 1242 \end{array}$$

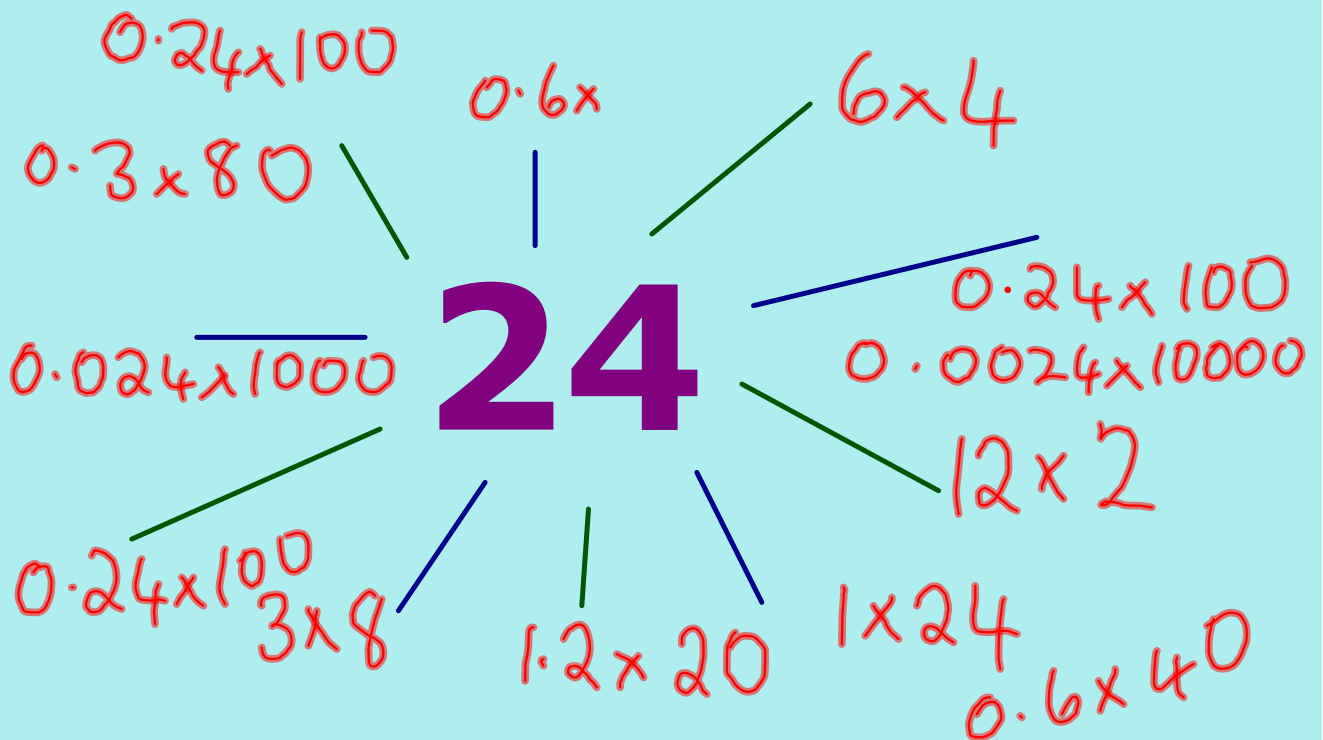
1) 4.5×8

2) 6.1×31

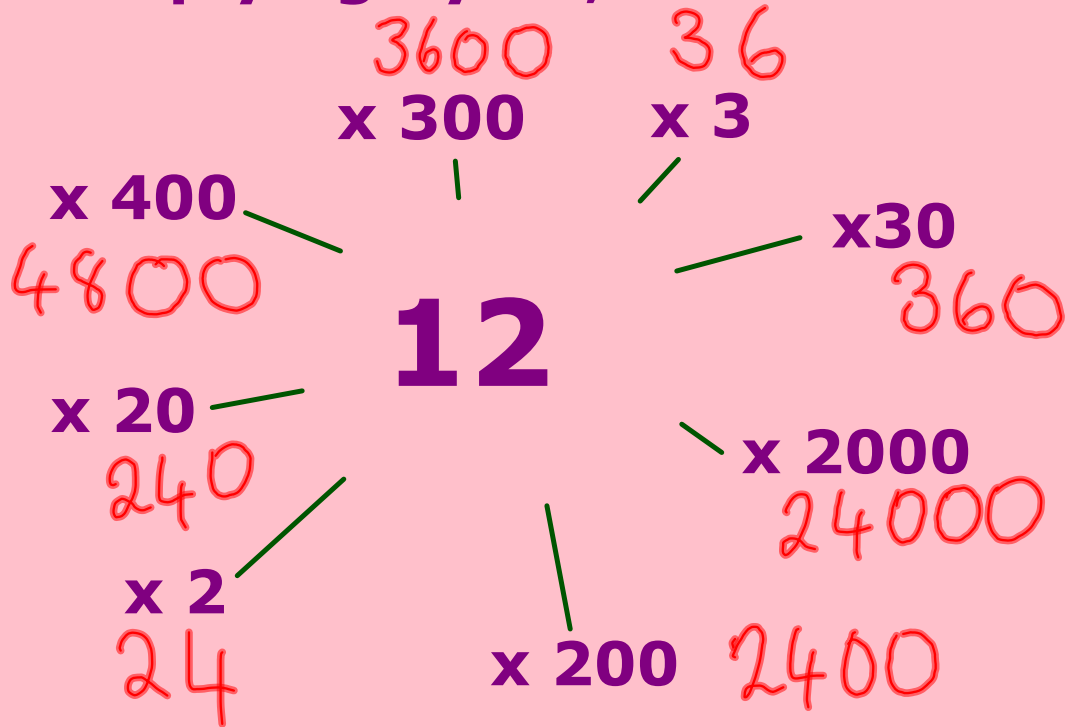
How many multiplication sums can you construct with an answer of 16?



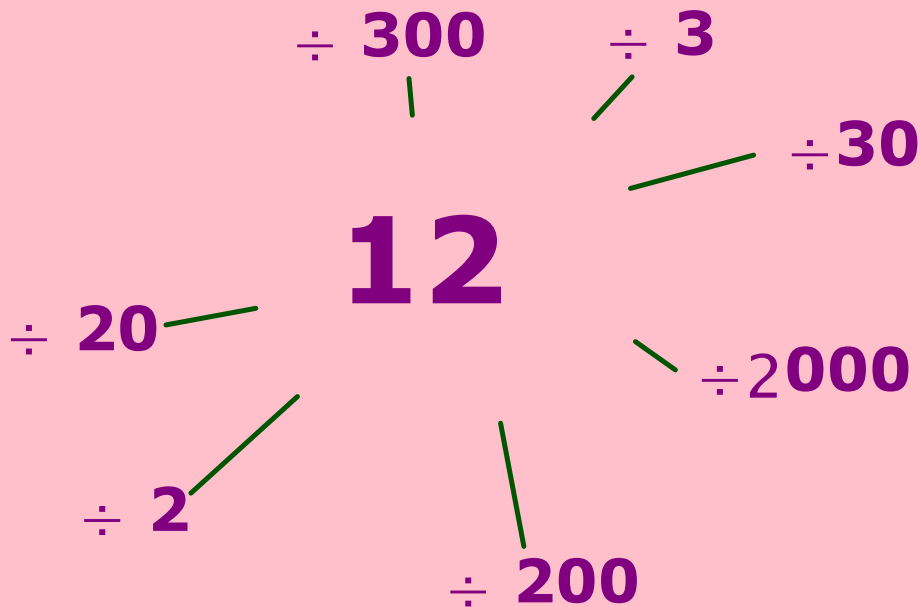
Related Multiplications



Multiplying by 20, 200 etc



Dividing by 20, 200 etc



How many of these can you do in 3 minutes?

$0.6 \times 100 = 60$
 $6 \div 100 = 0.06$
 $6 \div 200 = 0.03$
 $6 \div 0.2 = 30$
 $0.6 \div 100 = 0.006$
 $0.006 \div 100 = 0.00006$
 $0.6 \times 200 = 1.2 \times 100 = 120$
 $0.06 \times 200 = 12$
 $0.6 \times 0.1 = 0.06$
 $0.6 \div 200 = 0.3 \div 100 = 0.003$
 $0.6 \times 0.2 = 0.12$

E : 3+
 D: 4-9
 C: 10-11

Converting fractions to decimals

Which fractions do you know the decimal equivalent of?

$$\frac{1}{2} = 0.5 \quad \frac{1}{4} = 0.25$$

$$\frac{3}{4} = 0.75$$

$$\frac{1}{10} = 0.1$$

$$\frac{1}{100} = 0.01$$

$$\frac{2}{10} = 0.2$$

$$\frac{2}{100} = 0.02$$

$$\frac{3}{10} = 0.3$$

$$\frac{28}{100} = 0.28$$

$$\frac{10}{10} = 1$$

$$\frac{1}{3} = 0.33333 \dots \dots \text{recurring}$$
$$= 0.\dot{3}$$

$$\frac{2}{3} = 0.66666$$
$$= 0.66667$$
$$= 0.\dot{6}$$

Worksheet on converting fractions to decimals.

Using a calculator

$$\frac{7}{45} = 7 \div 45 = 0.1\dot{5}$$

$$\frac{6}{29} = 6 \div 29 = 0.20689\ldots$$
$$= 20.689\%$$

Writing Decimals as fractions

$$0.3 = \frac{3}{10}$$

$$0.65 = \frac{65}{100}$$

$$0.03 = \frac{3}{100}$$

$$0.731 = \frac{731}{1000}$$

Say it in your head!

$$35 \div 5 = 7$$

$$80 \div 4 = 20$$

$$40 \div 8 = 5$$

$$80 \div 2 = 40$$

$$40 \div 5 = 8$$

$$80 \div 5 = 16$$

$$45 \div 15 = 3$$

$$36 \div 4 = 9$$

$$42 \div 6 = 7$$

$$64 \div 16 = 4$$

Division

$$231 \div 11 = 21$$

$$11 \times 10 = 110$$

$$11 \times 10 = 110$$

$$\underline{220}$$

$$11$$

$$\underline{231}$$

Long Division without dividing

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$$270 \div 45 = 6 \quad \underline{10 \times 45 = 450}$$

$$5 \times 45 = 225$$

$$1 \times 45 = 45$$

$$\underline{270}$$

$$288 \div 24 = 12$$

$$24 \times 10 = 240$$

$$24 \times 2 = 48$$

$$\underline{288}$$



$$451 \div 11 = 41$$

$$10 \times 11 = 110$$

$$10 \times 11 = 110$$

$$\underline{220}$$

$$20 \times 11 = 220$$

$$\underline{440}$$

$$1 \times 11 = 11$$

$$\underline{451}$$



$$2232 \div 72 = 31$$

$$10 \times 72 = 720$$

$$10 \times 72 = 720$$

$$\underline{1440}$$

$$10 \times 72 = 720$$

$$\underline{2160}$$

$$1 \times 72 = 72$$

$$\underline{2232}$$

$$828 \div 36 = 23$$

$$36 \times 10 = 360$$

$$36 \times 10 = 360$$

$$\underline{720}$$

$$36 \times 2 = 72$$

$$\underline{792}$$

$$36 \times 1 = 36$$

$$\underline{828}$$

B 1a)

B 2a)

B 3a)

B5-B11

$$192 \div 16 = 12$$

$$10 \times 16 = 160$$

$$1 \times 16 = 16$$

$$\begin{array}{r} 10 \times 16 \\ 1 \times 16 \\ \hline 176 \\ 16 \\ \hline 192 \end{array}$$

$$1113 \div 53 = 21$$

$$10 \times 53 = 530$$

$$10 \times 53 = 530$$

$$\begin{array}{r} 10 \times 53 \\ 10 \times 53 \\ \hline 1060 \\ 53 \\ \hline 1113 \end{array}$$

$$384 \div 24 = 16$$

$$10 \times 24 = 240$$

$$5 \times 24 = 120$$

$$\begin{array}{r} 10 \times 24 \\ 5 \times 24 \\ \hline 360 \\ 24 \\ \hline 384 \end{array}$$

$$17 \div 5 = 3 \text{ remainder } 2$$

$$= 3 \frac{2}{5}$$

$$= 3.4$$

$$\frac{2}{5} = \frac{4}{10}$$

Write a word problem that requires you to do the sum $26 \div 6$?

$$4 \text{ r } 2$$
$$4 \frac{2}{6} = 4.3$$

When might the answer be 4?

When might the answer be 5?

Power to 10M5

$$2^2 = 2 \times 2 = 4$$

$$2^3 = 2 \times 2 \times 2 = 8$$

$$2^4 = 2 \times 2 \times 2 \times 2 = 16$$

$$2^5 = \quad \quad \quad = 32$$

$$2^6 = \quad \quad \quad 64$$

$$5^1 = 5$$

$$5^2 = 5 \times 5 = 25$$

$$5^3 = 5 \times 5 \times 5$$

$$5^4 = 5 \times 5 \times 5 \times 5 =$$

Use your power key to work out:

$$6^4$$

$$7^5$$

$$4.6^6$$

Using a calculator for powers and roots etc

Keys on your calculator that you need to be able to use:

√ square root

$\sqrt[3]{}$ cube root

^ x^y y^x power check $5^3 = 125$

() $6^3 = 216$

(-)

memory

see red inter book

Using your calculator to work out time

I mark 27 pieces of coursework and it takes me 3 1/2 hours.

On average how long do I spend on each one?

Suppose I walk 10 miles in 4 hours.

What speed do I walk at?

$$4 \boxed{\wedge} 4 =$$

$$1) 4^4 = 256$$

$$4) 9 \cdot 3^4 = 7480.5$$

$$2) 3 \cdot 2^5 = 355.5$$

$$5) 1 \cdot 3^7 = 6.72$$

$$3) 6^4 = 1296$$

Attachments

rounding to 1 dp.xbk

Bidmaspowers1Fch1.doc

divide by 10.doc

sig fig and dp.doc

multiplyin and dividing by 10.ppt

match the sums.doc

related multiplication.ppt

decimals.ppt.ppt

multiplication and division.ppt

Divide.ppt

15RandNos.xls

related multiplications (D).ppt