$\qquad$
$\qquad$

## Starting questions

a) $8+1-7=$ $\qquad$
b) $+7=18$
c) $2 \mathrm{~kg} \times 8=10 \mathrm{~kg}+$ $\qquad$ kg
d) 17- $\qquad$ $=9$
e) $10 \div 2=15 \div$ $\qquad$
f) What is twelve more than thirty?
g) How many halves in eight whole ones?
h) What number is 3 times bigger than 7 ?
i) Find the remainder when 26 is divided by 4.
j) Toby has 29 cards and Tracey has twice has many. How many have they altogether?
k) How many cans holding 300 ml can be filled from a bottle holding $4 \frac{1}{2}$ litres?
I) If October $29^{\text {th }}$ is a Wednesday, what date is the following Wednesday?
m) By how many times is 12 times 1000 more than 4 times 1000?
n) Multiply 8 by 7 .
$\qquad$
$\qquad$

## More Starting questions

a) What is one fifth of 75 ?
b) Find the sum of $4 \frac{1}{2}, 9 \frac{1}{2}$ and 11 .
c) $1-1 / 10=$
d) Write in figures the number, which equals seven tens and four units.
e) Which of these numbers is nearest to 70 ? $68,74,66$, 69,73
f) $\frac{3}{4}$ metres $=$ $\qquad$ cm
g) $6 / 8=$ $\qquad$ quarters
h) 36 months = $\qquad$ years
i) Add twenty nine to fifty five
j) How many sixths in 2/3?
k) Find the total of $4 \frac{3}{4} \mathrm{~m}$ and $2 \frac{1}{2} \mathrm{~m}$. $\qquad$ m
I) Write 3800 km to the nearest km . $\qquad$ km
m) Which number is 10 times greater than 4?
n) Which number is midway between 15 and 25 ?
o) 37 children are asked to stand in groups of 3 . How many are left over?
$\qquad$
$\qquad$

## Further starting questions

a) $1 \frac{3}{4}-\frac{1}{2}=$
b) $28 \div 4=$
c) $84-11=$
d) How many quarters in 7 whole ones?
e) Fill in the missing number: $7,17,27$ $\qquad$ 47
f) Subtract 8 from 2035
g) Find six tenths of 90
h) By how many cm is 2 m greater than the sum of 40 cm and 37 cm ?
i) The 40 sweets were divided between Ali, Ben \& Carl in the ratio: 2: 1:1-how many sweets did they get each? Ali $\qquad$ , Ben $\qquad$ Carl $\qquad$
j) Find the sum of 19 and 17 minus 7.
k) If $4^{\text {th }}$ November was a Tuesday. What was the date a week earlier?
I) $\qquad$ $+41=93$
m) How many minutes from 11:42 to 14:24?
n) $1 \frac{3}{4}+\frac{3}{4}=$
o) Draw a shape with 8 equal sides.
$\qquad$

## Times Tables

|  | 11 | 5 | 4 | 6 | 12 | 10 | 7 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 6 |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |


|  | 6 | 7 | 10 | 5 | 4 | 11 | 12 |
| ---: | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| 9 |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |
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| 11 |  |  |  |  |  |  |  |
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|  | 6 | 7 | 11 | 5 | 10 | 4 | 12 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
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| 6 |  |  |  |  |  |  |  |
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| 5 |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |


|  | 4 |  | 11 | 10 | 12 | 7 | 5 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 8 |  |  |  |  | 6 |  |  |
| 10 |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |

$\qquad$
$\qquad$

## BODMAS

What is $3+5 \times 5$ ? Is it 28? 40? We use BODMAS to help us calculate it.

Bodmas stands for:

# Brackets Of 

Division
Multiplication
Addition
Subtraction
It means that when we face a sum like $\mathbf{3 + 5 \times 5}$ we do the multiplication first $(5 \times 5)$ and then the addition +3 . So the answer is 28. We should use brackets to help us. The better way would be to write $3+(5 \times 5)$.

Try answering these using BODMAS.

1. $7+4 \times 2=$
2. $4+4 \div 2=$
3. $9+6-3=$
$4.5+5 \times 4=$
4. $12+3 \times 3=$
5. $3 \times 4+5=$
6. $7 \times 2-3=$
7. $8+4-3=$
8. $9 \div 3 \times 2=$
$\qquad$
$\qquad$

Write the following sums out without changing the order of the numbers. To make the sums correct put in the brackets if necessary to show which part has to be completed first.

$$
\begin{aligned}
& 8+4 \times 6-5=27 \\
& 8+4 \times 6-5=12 \\
& 8+4 \times 6-5=67
\end{aligned}
$$

You can see the need for a rule on this otherwise everyone would be doing sums in different ways and getting different answers!

Put in the signs and/or brackets to make the following true:

1. $443=16$
2. $7611=12$
3. $224=8$
4. $224=16$
5. $433=13$
6. $355=28$
7. $464=20$
8. $1035=35$
9. $246=1$
10. $2424=8$
11. $544=21$
12. $355=10$
$\qquad$

## Squares, Roots \& Powers

E.g. 2 squared means $2 \times 2$. It would be written $2^{2}=4$. Three squared $3^{2}=3 \times 3=9$. We have to think of squares. Fifteen squared $=15^{2}=$ 225.

The square root of a number is written $\sqrt{225}$. It is to find the two numbers, which, when multiplied together, become 225. 225 squared is $\sqrt{2} 25=15$.

6 to the power of 3 would be written $6^{3}$. It means $6 \times 6 \times 6=216$ 5 to the power of 3 would be written $5^{3}$. It means $5 \times 5 \times 5=125$

Try these questions:
a) $7^{2}=$
b) $2^{2}=$
c) $10^{2}=$
d) $6^{2}=$
e) $14^{2}=$

What is the square root $\int$ of:
f) $\sqrt{64}$
g) $\sqrt{9}$
h) $\sqrt{81}$
i) $\sqrt{121}$
j) $\sqrt{25}$

Find:
k) $7^{3}=$
l) $3^{3}=$
m) $10^{3}=$
n) $6^{3}=$
$\qquad$
$\qquad$

## Percentages $£$

 Work out....1. $21 \%$ of $£ 340$2. $9 \%$ of $£ 3700$
2. $17.5 \%$ of $£ 420$
$4.5 \%$ of $£ 79.85$
3. $80 \%$ of $£ 92.98$
4. 117.5\% of $£ 92.40$
5. 15\% of $£ 93.82$
6. $35 \%$ of $£ 7.05$
7. $75 \%$ of $=£ 72.90$
$10.60 \%$ of $£ 13.50$
8. Trainers cost £50 plus $17.5 \%$ VAT. How much are
they in total?
$\qquad$
Name: $\qquad$

## Fractions and Money

a) Kelly spent her $£ 3.00$ pocket money this way: $7 / 20$ on chocolate, $\frac{1}{4}$ on magazines, $4 / 10$ on games. How much did she spend in each area?
b) Eduardo spent $2 / 5$ of his pocket money on magazines, and $1 / 10$ of his pocket money on games. What fraction of his money did he have left?
c) Amy buys a bag of flour. She uses $\frac{1}{4}$ to make pancakes and $2 / 5$ to bake a cake. What fraction of the flour was used? What fraction of the flour is left?
d) There are $n$ items in the shopping. $60 \%$ is food for the baby. $40 \%$ is food for the cat. If $n=15$, how many items are for the cat?
e) $7 / 20$ of Shaun's wages are paid to Mrs Maxims for rent. He spends $4 / 20$ on food. If he earns $£ 105$ - how much does he pay for rent and food in total?

## Ratios and Money

f) Share out $£ 250$ in the following ratios:
i. 1: 4
ii. 2: 4: 9
iii. 2: 5: 3 vi. 5:2:2
g) Share out the lottery winnings equally - $£ 18,492.75$ between Ellie, Annie and Sherrie.
h) Charlotte splits her $£ 15.00$ in the following ratio: $3 / 10$ save, $1 / 10$ to charity. How much does she save? How much does she donate? How much is left?
$\qquad$
$\qquad$

## Ratios

## Write these ratios in their simplest

 form...a) $6: 9$
b) $10: 15$
c) $7: 35$
d) $8: 48$
e) $18: 63: 9$
f) $8: 72: 12$
g) $27: 81$
h) $90: 10$
i) $65: 15$
j) A recipe for vegetable soup for 6 people is: 2 carrots, 1 onion, 800 ml stock, 50 g lentils, 4 g thyme. What would be the ingredients for:
12 people
9 people
30 people
k) A recipe for making $1 \frac{1}{2}$ litres of parsnip soup is: 450 parsnips, 300 g leeks, 150 apples, 3 onions, $1 \frac{1}{2}$ pints of chicken stock. Work out the ingredients for:
$2 \frac{1}{2}$ litres of soup
1000 ml of soup
$\qquad$

Value for money

1. Which of the following offer better value for money?
a) 200 ml of toothpaste for 50 p or 400 ml of toothpaste for 90p?
b) 600 g of apples for 90 p at 200 g of bananas for 19 p ?
c) 2 litres of paint for $£ 1.60$ or 5 litres of paint for £3.50?
d) 60 teabags for $£ 1.62$ or 40 teabags for $£ 0.96$ ?
e) 75 ml of water for 70 p or 135 ml of water for $£ 1.50$ ?
f) 20 exercise books for $£ 4.00$ or 35 exercise books for $£ 7.80$ ?
g) 14 pencils for $£ 1.99$ or 50 pencils for $£ 6.99$ ?
h) Juliet needs to buy 2 litres of paint. At the shop she has 2 choices: $\frac{1}{2}$ litre for $£ 2.55$ or 1 litre for $£ 4.79$ ?

What is the difference between the 'best' buy and the 'worst buy'?
i) Jam is sold in 2 sizes: a small pot costs 45 p and weights 450 g . A large pot costs 80 p and weights 850 g . Which is the best buy?
j) Kumara can buy 5 books for $£ 8.60$ or 3 books for £4.95. Which is the best deal?
$\qquad$

## Converting Measurements

$$
\begin{gathered}
1 \text { mile }=1.6093 \mathrm{~km} \\
1 \text { gallon }=4.546 \text { litres } \\
1 \text { pint }=0.568 \text { litres } \\
1 \mathrm{lb}=0.4536 \mathrm{~kg} \\
1 \text { stone }=6.3503 \mathrm{~kg} \\
1 \text { ounce }=28.3495 \mathrm{~g}
\end{gathered}
$$

a) 1 gallon $=$ $\qquad$ pints
b) 1 stone $=$ $\qquad$ pounds
c) Riana weighs 55 kg . How many pounds is this?
d) Lynda weighs $8 \frac{1}{2}$ stones. How many kilograms is this?
e) Who weighs more - Riana or Lynda?
f) $1 \mathrm{~km}=$ $\qquad$ miles
g) 1 litre $=$ $\qquad$ pints
h) $1 \mathrm{~kg}=$ $\qquad$ pounds
i) Which is further -1500 km or 1200 miles?
j) What weighs the most - 200 lbs or 90 kgs ?
k) What can hold the most - 10 pints or 1 gallon?
I) Sylvia weighed 60kg. She put on 101 lbs . How much does she weigh now (in kgs)? And in pounds?
m) The baby weighed 5Ibs 7 ounces. How many grams?

