

Sutton Maths Class

Year 4 - Week 15

Starter/Homework:

(Starred questions are optional)

1 Simplify:

a) $\frac{25}{150}$ b) $\frac{28}{49}$

2 Complete the following:

$$\frac{2}{5} = \frac{?}{30} = \frac{300}{?}$$

3 Convert the following to mixed numbers and simplify where possible:

a) $\frac{73}{3}$ b)* $\frac{563}{5}$

4 Find $\frac{4}{5}$ of 670kg.

5 a) Find 20% of £40.
b) Find 52% of 4000ml.

6 Increase £20 by 15%.

7 Write $2\frac{23}{1000}$ as a decimal.

8 Round 67.32 to the nearest tenth.

9 Solve $4x - 3 = 25$ $x = \underline{\hspace{2cm}}$

10* Solve $\frac{1}{2}x = 50$ $x = \underline{\hspace{2cm}}$

11 I think of a number, times by 5, subtract 6 and the answer is 9. What was the number?

12 a $89 - 95 =$
b $-15 - 20 =$
c $10 - 30 =$
d $-40 - 70 =$
e $-80 - 200 =$
f $0 - 23 =$
g $5 - 18 =$

13 a $-6 \times -20 =$
b $-150 \div -50 =$
c $(-10)^2 =$
d* $-20 + 40 \div -4 =$
(don't forget BIDMAS)
e* $(5)^2 - (-4)^2 + (-2)^2$

14* $(100 \div 2)^2 - 3 + 5^2 \times 4 =$

15** If $a = 10$, $b = 20$ and $c = 30$ find:

a $\frac{a \times c}{b}$ or $(a \times c) \div b$

b. $\frac{b^2 - c^2}{a^2}$ or $(b^2 - c^2) \div a^2$

Please note the above two questions show two ways of writing the same expression.

16 Simplify:
a) $100 : 55$ b) $56 : 49$

17 Split £750 in the ratio 3:2.

18 List the factors of:
a) 50 b) 35

19* Draw a factor tree for 500.

20 a $\frac{5}{6} + \frac{2}{3} =$ b $\frac{7}{8} - \frac{1}{2} =$

c $\frac{2}{5} \times \frac{4}{5} =$ d $\frac{2}{3} \div \frac{1}{5} =$

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Questions:

1 Complete the following:

- a $20 \text{ cm} = \square \text{ m}$ **0.2**
- b $15 \text{ mm} = \square \text{ cm}$ **1.5**
- c $5.5 \text{ cm} = \square \text{ mm}$ **55**
- d $0.4 \text{ cm} = \square \text{ mm}$ **4**
- e $1.6 \text{ m} = \square \text{ cm}$ **160**
- f $300 \text{ cm} = \square \text{ m}$ **3**
- g $3200 \text{ m} = \square \text{ km}$ **3.2**
- h $400 \text{ m} = \square \text{ km}$ **0.4**
- i $0.7 \text{ km} = \square \text{ m}$ **700**
- j $5.5 \text{ km} = \square \text{ m}$ **5500**
- k $8000 \text{ g} = \square \text{ kg}$ **8**
- l $0.6 \text{ kg} = \square \text{ g}$ **600**
- m $9.4 \text{ kg} = \square \text{ g}$ **9400**
- n $1400 \text{ ml} = \square \text{ litres}$ **1.4**
- o $500 \text{ ml} = \square \text{ litres}$ **0.5**
- p $4 \text{ litres} = \square \text{ ml}$ **4000**
- q $6.4 \text{ litres} = \square \text{ ml}$ **6400**

2 Complete the following:

- a $601 \text{ mm} = \square \text{ cm}$ **60.1**
- b $5.4 \text{ cm} = \square \text{ mm}$ **54**
- c $15.4 \text{ cm} = \square \text{ mm}$ **154**
- d $326 \text{ cm} = \square \text{ m}$ **3.26**
- e $45 \text{ cm} = \square \text{ m}$ **0.45**
- f $2.14 \text{ m} = \square \text{ cm}$ **214**
- g $0.05 \text{ m} = \square \text{ cm}$ **5**
- h $1230 \text{ m} = \square \text{ km}$ **1.23**
- i $0.95 \text{ km} = \square \text{ m}$ **950**

- j $6.24 \text{ km} = \square \text{ m}$ **6240**
- k $750 \text{ g} = \square \text{ kg}$ **0.75**
- l $4280 \text{ g} = \square \text{ kg}$ **4.28**
- m $0.04 \text{ kg} = \square \text{ g}$ **40**
- n $0.86 \text{ kg} = \square \text{ g}$ **860**
- o $60 \text{ ml} = \square \text{ litres}$ **0.06**
- p $3150 \text{ ml} = \square \text{ litres}$ **3.15**
- q $0.87 \text{ litres} = \square \text{ ml}$ **870**
- r $6.23 \text{ litres} = \square \text{ ml}$ **6230**

3* Complete the following:

- a $624 \text{ mm} = \square \text{ m}$ **$62.4 \text{ cm} = 0.624 \text{ m}$**
- b $3928 \text{ mm} = \square \text{ m}$ **$392.8 \text{ cm} = 3.928 \text{ m}$**
- c $0.592 \text{ m} = \square \text{ mm}$ **$59.2 \text{ cm} = 592 \text{ mm}$**
- d $0.382 \text{ m} = \square \text{ mm}$ **$38.2 \text{ cm} = 382 \text{ mm}$**
- e $3 \text{ cm} = \square \text{ m}$ **0.03**
- f $3290 \text{ cm} = \square \text{ m}$ **32.9**
- g $50 \text{ m} = \square \text{ cm}$ **5000**
- h $45.28 \text{ m} = \square \text{ cm}$ **4528**
- i $39 \text{ m} = \square \text{ km}$ **0.039**
- j $2819 \text{ m} = \square \text{ km}$ **2.819**
- k $0.529 \text{ km} = \square \text{ m}$ **529**
- l $0.003 \text{ km} = \square \text{ m}$ **3**
- m $1583 \text{ g} = \square \text{ kg}$ **1.583**
- n $92 \text{ g} = \square \text{ kg}$ **0.092**
- o $0.003 \text{ kg} = \square \text{ g}$ **3**
- p $3.106 \text{ kg} = \square \text{ g}$ **3106**
- q $832 \text{ ml} = \square \text{ litres}$ **0.832**
- r $3928 \text{ ml} = \square \text{ litres}$ **3.928**
- s $0.027 \text{ litres} = \square \text{ ml}$ **27**
- t $0.302 \text{ litres} = \square \text{ ml}$ **302**

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- 4* Calculate:
- a $7\text{m} - 52\text{cm} = \underline{6.84\text{m}}$
 b $8\text{kg} + 429\text{g} = \underline{8.429\text{kg}}$
 c $8\text{mm} + 4.3\text{cm} = \underline{51\text{mm}}$
 d $5.5\text{l} - 670\text{ml} = \underline{4.830\text{ml}}$
- 5* How many grams less than 5kg is the total mass of 6 parcels with a mass of 55g each? $\underline{4670\text{g}}$
- 6* $7\text{kg } 30\text{g} = \underline{7030\text{g}}$
- 7* Find $\frac{4}{5}$ of 15 kg. $\frac{1}{5} \Rightarrow 3\text{kg}$
 $\frac{4}{5} \Rightarrow \underline{12\text{kg}}$
- 8* Fred has completed 4.2km of a 10 km journey. How many metres does he still have to travel? $\underline{5800}$
- 9* $2\text{kg } 300\text{g} \times 5 = \underline{11.5\text{kg}}$
- 10* How far is it around a rectangular field which is 80m long and 70m wide? $\underline{160 + 140 = 300\text{m}}$
 or $\underline{0.3\text{km}}$
- 11* $\frac{3}{4}\text{kg} - 160\text{g} = \underline{590\text{g}}$
- 12* Write to the nearest $\frac{1}{2}$ kg:
- a $1\text{kg } 800\text{g}$ $\underline{2\text{kg}}$
 b $2\text{kg } 490\text{g}$ $\underline{2.5\text{kg}}$
- 13* What fraction of 30kg is 10kg? $\frac{10}{30} = \underline{\frac{1}{3}}$
- 14* What fraction of 25kg is 15kg?
 $\frac{15}{25} = \underline{\frac{3}{5}}$
- 15* Jason takes four 5ml ^{20ml} spoonfuls of medicine each day. How many days will 0.3 litres last for? $\underline{300 \div 20 = 300 \div 10 \div 2 = 30 \div 2 = 15\text{days}}$
- 16** A taxi for a journey of 5km cost £8. What was the cost per kilometre? $\underline{5\text{km} \Rightarrow \pounds 8 = 800\text{p}} \div 5 \rightarrow \underline{160\text{p}}$
 $\underline{1\text{km} \Rightarrow \pounds 1.60}$
- 17** Which two boxes have a combined mass of 1.4 kg?
- Box 1 $\underline{750\text{g}}$
 Box 2 0.7kg
 Box 3 0.9kg
 Box 4 $\underline{650\text{g}}$
- $\underline{750} + \underline{650} = \underline{1400\text{g}} = \underline{1.4\text{kg}}$
- 18* How many 250 ml bottles can be filled from $3\frac{1}{2}$ litres of water? $\underline{3500 \div 250 = 350 \div 25 = 14}$
- 19* Find the cost of 100g of sugar if it costs 85p per $\frac{1}{2}\text{kg}$. $\underline{85\text{p} \Rightarrow 500\text{g}} \div 5 \rightarrow \underline{17\text{p}} \Rightarrow \underline{100\text{g}} \div 5 \rightarrow \underline{17\text{p}}$
- 20* What length is 4 times longer than 3.5cm. $\underline{35\text{mm} \times 4 = 120\text{mm} + 20\text{mm} = 140\text{mm}}$
 or $\underline{14\text{cm}}$
- 21* Two bucket each hold 600ml. By how many ml is their total volume less than 1.5 litres.
 $\underline{1500 - 1200 = 300\text{ml}}$
- 22* Find in grams:
- a $\frac{1}{5}$ of 1kg $\underline{1000 \div 5 = 200\text{g}}$
 or $\underline{0.2\text{kg}}$
- b $\frac{2}{3}$ of 6 kg. $\underline{4000\text{g}}$ or $\underline{4\text{kg}}$
- 23* Divide 45kg by 100, give your answer in grams. $\underline{0.45\text{kg} = 450\text{g}}$

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- 24* Decrease 0.6l by 250ml.
- 25* Write in metres and centimetres 205.35m.
- 26* A teaspoon holds 5ml. How many spoonfuls in $\frac{1}{5}$ of a litre.
- 27* $2.7\text{km} - 300\text{m} = \underline{\hspace{1cm}} \text{ km}$
- 28* $0.035 \text{ litres} = \underline{\hspace{1cm}} \text{ ml}$
- 29* $2\text{kg} + 40\text{g} = \underline{\hspace{1cm}} \text{ kg}$
- 30* How many millimetres are there in 2.05m?
- 31* A box of pencils has a mass of 1.5kg. The mass of the box is 400g. Find the mass of the pencils in kilograms.
- 32* $10\% \text{ of } 5\text{kg} = \underline{\hspace{1cm}} \text{ g}$
- 33* $15\% \text{ of } 3\text{kg} = \underline{\hspace{1cm}} \text{ g}$
- 34* $350 \text{ ml} \times 8 = \underline{\hspace{1cm}} \text{ litres}$
- 35* How many 20cm pieces of ribbon can be cut from a 5m 50cm long piece of ribbon.
- 36* $0.372 \text{ kg} = \underline{\hspace{1cm}} \text{ g}$