

# Sutton Maths Class

## Year 4 - Week 29

### Starter/Homework:

(Starred questions are optional)

1 Simplify:

a)  $\frac{56}{60} = \frac{14}{15}$  b)  $\frac{650}{750} = \frac{65}{75} = \frac{13}{15}$

2 Complete the following:

$\frac{4}{21} = \frac{?}{42} = \frac{20}{?}$   
 ? 8      ? 105

3 Convert  $\frac{40}{6}$  to mixed number.  
 $6\frac{4}{6} = 6\frac{2}{3}$

4 Find  $\frac{2}{9}$  of £360.  
 $40 \times 2 = \underline{80}$

5 Find 20% of \$40. \$8

6\* Decrease 80p by 40%.

$8 \times 4 = 32$   
 $80 - 32 = \underline{48p}$

7 Write  $4\frac{68}{100}$  as a decimal.  
 4.68

8 Round 6.299 to the nearest tenth.  
 6.3

9 Solve  $8x - 5 = 51$        $x = \underline{7}$

10\*\*\*\* Solve  $\frac{x}{2} = 20$        $x = \underline{40}$

11\*\* I think of a number, multiply by 3, subtract 1 and the answer is 14. What was the number?

$3x - 1 = 14$        $x = \underline{5}$

12 a  $6 - 14 = -8$   
 b\*  $-46 - 2 = -48$   
 c  $-5 - 13 = -18$   
 d  $0 - 20 = -20$   
 e\*  $1 - 50 = -49$

13 a  $-80 \times -5 = 400$

b\*  $16 \div -4 = -4$

c\*\*\*  $(-8)^2 = 64$

d\*\*\*  $14 + 6 \times -2 = 14 - 12 = 2$   
 (don't forget BIDMAS)

e\*\*\*\*  $(-3)^2 \times 2^2 - 5^2 = 9 \times 4 - 25 = 36 - 25 = 11$

14\*\*\*\*  $7 \times 6 - 3 \times 2^2 = 42 - 12 = 30$

15\*\*\*\* If  $a = 0.3$  and  $b = 10$  find:

a  $a \times b = 3$

b  $b^2 + a = 100 + 0.3 = 100.3$

c\*\*\*  $a^2 \times b = 0.09 \times 10 = 0.9$

16 Simplify:

a)  $60 : 3$  b)  $18 : 36$

$20 : 1$        $1 : 2$

17\*\* Split £340 in the ratio 15:2.

$340 \div 17 = 20$        $20 \times 15 = 300$   
 $+100$   
 $300$   
 $20 \times 2 = 40$

18 List the factors of 52.

1, 2, 4, 13, 26, 52

19\*\*\* Draw a factor tree for 200.



20 a  $\frac{24}{36} + \frac{1}{6} = \frac{5}{6}$  b  $\frac{5}{6} \times \frac{2}{3} = \frac{10}{18} = \frac{5}{9}$

21 Complete the following:

a  $0.2 \text{ cm} = \square \text{ mm}$  2

b  $0.614 \text{ m} = \square \text{ mm}$  614

c  $2700 \text{ g} = \square \text{ kg}$  2.7

d  $682 \text{ ml} = \square \text{ litres}$  0.682

22\*\*\* What fraction of 600kg is 500g?

$\frac{500}{600,000} = \frac{5}{6000} = \frac{1}{1200}$

23 Complete the following sequences:

a 7, 10, 13, 16, 19, 22, 25

b 3, 6, 12, 24, 48, 96, 192

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24\*\* Find the first four terms of the sequence with nth term

$6n + 3$ . *9, 15, 21, 27*

25 Calculate:

a  $12^2 - 5^3$  *144 - 125 = 19*

b\*\*  $6^2 - \sqrt{16} - 4^2$   
*36 - 4 - 16 = 16*

26 Convert the following:

a 0.21 (percentage) *21*

b 93% (decimal) *0.93*

c 90% (decimal) *0.9*

d 0.3 (percentage) *30*

e 70% (fraction)  *$\frac{7}{10}$*

f 49% (fraction)  *$\frac{49}{100}$*

g 0.12 (fraction)  *$\frac{12}{100} = \frac{6}{50} = \frac{3}{25}$*

h\*\*\* 0.425 (percentage) *42.5*

i\*\*\* 0.375 (fraction)  *$\frac{375}{1000} = \frac{3}{8}$*

27 Calculate:

a  $0.5 \times 0.02 = 0.01$

b\*  $12 \div 0.1 = 120$

c\*\*\*  $8 \div 0.2 = 40$

d\*\*\*\*\*  $(0.03)^2 = 0.0009$

e\*\*\*\*\*  $-20 \times -0.3 = 6$

28 Write the nth term of the sequence:

12, 16, 20, 24, 28, ...

*$4n + 8$*

29\*\*\*\* Find the nth term of:

5.5, 6, 6.5, 7, 7.5, 8, ...

*$0.5n + 5$*

30\*\*\*\*\* Write the nth term of the sequence

60, 58, 56, 54, 52, ...

*$-2n + 62$  or  $62 - 2n$*

*Question: why are these the same?*

31 The following are 8 pupils shoe sizes:

*2, 3, 4, 4, 5, 5, 7*  
*5, 2, 4, 3, 7, 4, 5, 4*

a)\*\*\*\*  *$7 + 7 + 11 + 9 = 34$*   
Find the mean to the nearest whole number.  *$34 \div 8 = 4.25$*  *(4)*  *$= 4 \frac{1}{4}$*

b) Find the mode. *(4)*

c) Find the median. *(4)*

d) Find the range.  *$7 - 2 = 5$*

32 Write DCCCXXIX as an Arabic numeral.  *$500 + 300 + 20 + 9 = 829$*

33 Write 649 in Roman numerals. *DCXLIX*

*600 + 40 + 9*  
*DC XL IX*

*$5 \times 2 = 10$*

*$0.5 \times 2 = 1$*

*not needed*

*don't forget you can always swap decimals and fractions*