

KS3 higher homework week 5

1 Work out don't forget to simplify your answer

- a) $1/4 \times 2/5$ b) $3/5 \times 4/6$ c) $5/7 \times 3/10$ d) $7/9 \times 3/11$ e) $7/15 \times 10/14$
f) $1/6 \div 1/4$ g) $1/2 \div 3/4$ h) $5/7 \div 10/11$ i) $1/10 \div 4/15$ g) $1/12 \div 11/15$

2 With the following fraction convert it to top heavy fractions before working it out

$$1 \frac{1}{3} \times 1 \frac{1}{5} = \quad ?/3 \times ?/5 = ?$$

Now work these out

- a) $1 \frac{1}{4} \times 1 \frac{2}{5}$ b) $2 \frac{1}{2} \times 1 \frac{1}{10}$ c) $1 \frac{3}{7} \times 1 \frac{5}{9}$

3 Again with this fraction convert it to a top heavy fraction before working it out

$$1 \frac{1}{5} \div 1 \frac{1}{2} = \quad ?/5 \div ?/2 = \quad ?/5 \times 2/?$$

Now work these out

- a) $1 \frac{1}{2} \div 1 \frac{1}{3}$ b) $1 \frac{1}{7} \div 1 \frac{1}{3}$ c) $2 \frac{3}{4} \div 1 \frac{5}{6}$

4 A Library has both Fiction and Non Fiction books. $3/5$ of all the books are Fiction

Of all of the Fiction books $1/6$ are hardback

Work out what fraction of all the books are Fiction and hardback

hint you are finding $3/5$ of $1/6$ $3/5$ of $1/6 = 3/5 \times 1/6$

5 In a tin of chocolates $3/8$ of the chocolates are plain. Of these plain chocolates $1/3$ of them have fruit centres

What percentage of the tin are plain chocolates and have fruit centres?

6 Don't forget how to do your addition and subtraction!

- a) $1/4 + 2/3$ b) $3/4 + 2/7$ c) $5/6 - 1/5$ d) $7/10 - 1/3$

7 Convert the following percentages to decimals

- a) 81% b) 34% c) 30% d) 7% e) 2.5%

8 Convert the following decimals to percentages

- a) 0.45 b) 0.76 c) 0.9 d) 0.06 e) 0.125

9 Convert the following decimals and percentages to fractions cancelling down where necessary

- a) 0.56 b) 24% c) 0.2 d) 3% e) 0.375

10 Convert the following fractions to decimals and percentages

- a) $3/10$ b) $7/100$ c) $16/100$ d) $2/5$ e) $4/5$ f) $3/50$
g) $1/20$ h) $7/20$ i) $3/25$ j) $1/8$ k) $5/8$ l) $30/40$

11 Now using a CALCULATOR convert these to decimals and percentages

- a) $24/32$ b) $16/40$ c) $19/76$ d) $7/56$ e) $18/25$

12 Jerrad gets the following marks in a test, what are his percentages?

Maths - 45 marks out of 60

Science - 84 marks out of 120

English - 28 marks out of 32

13 I have to travel a distance of 160 miles, after an initial 44 miles I take a break, (calc)

what percentage of my journey have I done? hint see numbers as a fraction first

14 A recipe uses 350g of sugar, I have a 1 kg bag of sugar, what percentage of the bag will I use for the recipe?

15 Convert the following fractions to decimals by using division, round your answers to 4 decimal places where needed

- a) $2/3$ b) $5/8$ c) $5/6$ d) $5/7$ e) $2/11$

which of the above are recurring decimals?

16 Work these out, remember the whole number can be expressed as a fraction by putting it over 1

- a) $8 \times 1/2$ b) $3/4 \times 20$ c) $45 \times 2/5$ d) $3 \div 1/2$ e) $2/7 \div 4$ d) $7/9 \div 21$

17 Jane's cat eats $2/3$ of a tin of cat food a day, Jane wants to buy enough food to last a fortnight.

How many tins does Jane need to buy?

18 Work these out, you will need to do a bit of converting first!

- a) $1/2 + 0.24$ b) $0.8 - 1/5$ c) $0.3 \times 5/6$ give answers as both a fraction and a decimal
d) $1/10 \div 0.15$