

KS3 week 7 homework

1 Quick Fraction Reminder

- a) $2/3 + 1/5$ b) $7/9 - 1/2$ c) $2/9 \times 3/4$ d) $4/5 \div 7/10$

2 Simplify the following fractions

- a) $5/10$ b) $18/27$ c) $8/12$ d) $21/28$ e) $30/75$ f) $120/280$

3 Simplify the following ratios

- a) $8 : 16$ b) $4 : 10$ c) $3 : 18$ d) $15 : 30$ e) $12 : 36$ f) $44 : 55$
g) $64 : 48$ h) $96 : 36$ i) $4 : 8 : 10$ j) $12 : 16 : 40$ k) $0.3 : 1.2$ l) $2.4 : 3.6$

4 Express the following in the form 1 : n

- a) $2 : 6 = 1 : 3$ b) $2 : 8$ c) $12 : 36$ d) $4 : 14$ e) $4 : 2$ f) $32 : 8$

5 Find the fractions of the amounts

- a) $2/5$ of 45 b) $2/3$ of 36 c) $3/4$ of 28 d) $7/10$ of 120 e) $3/8$ of 560

6 Divide the following quantities into the ratios given

- a) £18 $1 : 2$ b) £20 $1 : 3$ c) £15 $2 : 3$ d) £27 $1 : 2$ e) £120 $1 : 3$ f) £35 $2 : 3$
g) £ 42 $3 : 4$ h) £104 $5 : 3$ i) £800 $2 : 3$ j) £720 $4 : 5$ k) £54 $2 : 3 : 4$ l) £88 $1 : 3 : 7$

7 £120 is left to Mark and Ria in the ratio of their ages, Mark is 7 and Ria is 8, how much do they each receive?

8 Tim & Maisy divide some sweets between them in the ratio 2 : 3

If Tim gets 18 sweets how many sweets does Maisy get?

9 John mixes green paint using blue and yellow paint in the ratio 2 : 5

a) If John wants to make 350ml of paint how much blue & yellow paint will he need?

b) John makes a second batch of paint, this time he has 1 litre of yellow paint, how much blue paint will he need?

10 The angles in a triangle are in the ratio 3 : 2 : 1 what are the size of the three angles?

11 Angela and Ben share £85 between them. Angela gets 4 times as much as Ben

What fraction of the amount does Angela get? How much do they each get?

12 $3/8$ of students in a class are girls, what is the ratio of girls to boys?

If there are 12 girls, how many boys are there? And how many students are there in total?

13 If 5 CDs cost £3.50 How much does

- a) 1 CD cost b) 2 CDs cost c) 7 CDs cost d) 12 CDs cost

14 If 8 books cost £24 how much is the cost of

- a) 1 book b) 4 books c) 10 books d) 25 books

15 Gill is paid £45 for 5 hours work. How much is she paid for

- a) 3 hours work b) If Gill works for 5 days, working 8 hours a day, how much does she get paid in total?

16 Mary follows a recipe to make 4 cakes 240g flour 80g sugar 2 eggs

If she wants to make 10 cakes, how much will she need of each ingredient?

17 It takes 8 men 10 hours to paint a wall a) How long does it take 4 men to paint the same wall?

b) If I wanted the wall painted in 2 hours, how many men would I need?

c) If only 1 man turned up to paint, how long would it take him to paint the wall?

18 In a factory 10 machines can make 2000 cup cakes in an hour

a) If only 5 machines are working, how long would it take to make the 2000 cup cakes?

b) The factory need 10,000 cupcakes made in one hour, how machines should they use?