# Ratio 1 (worked examples)

**\*\* You need a calculator for this worksheet.**

*Try these questions. Once you have completed this sheet try the questions on the next sheet.*

1.    (a)    Divide £50 in the ratio 3 : 7 .      (b)    Divide 80kg in the ratio 3 : 7 .

       (c)    Divide £35 in the ratio 5 : 2 .      (d)    Divide 240 g in the ratio 4 : 1 .

2.    (a)    Three boys, Harry, James and Bill divide £120 in the ratio 1 : 3 : 8 .
   How much does each boy get ?

       (b)    Three girls, Susan, Beth and Jill divide £56 in the ratio 2 : 5 : 7 .
   How much does each girl get ?

3.    Graeme and Fred invest £3400 in a new company.

       (a)    If the money each of them put in was in the ratio 3 : 7 , how much
   did Fred invest in the new company ?

       (b)    They decide to split the profits in the same ratio as their investment.
   If they made £6200 profit, how much of the profit will Graeme get ?

4.    The ratio of boys : girls in a class is 4 : 5. If there are 27 pupils in the class, how many
   girls are there.

5.    (a)    In a piece of jewellery the ratio of gold to silver is 5 : 2.
   If the jewellery contains 40 grammes of gold, what weight of silver does it contain ?

       (b)    An lottery win was shared between three brothers, Dave, Frank and Pat, in the ratio 1 : 3 : 4.
   If Pat received £824, how much did each of the other two brothers receive ?

6.    Two farmers, Bill and Dan, decided to split a herd of cows in the ratio 5 : 7.

       (a)    If Dan's share was 42 cows, how many cows did Bill get ?

       (b)    How many cows were there altogether ?

       (c)    A third farmer, George, came along and the three farmers decided to split the herd in
   the ratio (B : D : G) 3 : 4 : 1.
   How many cows will each farmer get

# Ratio (2)

*** You need a calculator for this worksheet.**

1.  (a)  Divide £48 in the ratio $3:5$.    (b)  Divide £100 in the ratio $7:3$.

    (c)  Divide £56 in the ratio $1:6$.    (d)  Divide £50 in the ratio $4:1$.

    (e)  Divide £120 in the ratio $5:3$.    (f)  Divide £75 in the ratio $8:7$.

    (g)  Divide £36 in the ratio $4:5$.    (h)  Divide £240 in the ratio $5:7$.

2.  (a)  Three boys divide £88 in the ratio $1:3:7$. How much does each boy get ?

    (b)  Three girls divide £48 in the ratio $2:3:11$. How much does each girl get ?

    (c)  Three men divide £60 in the ratio $3:4:5$. How much does each man get ?

    (d)  Three girls divide £96 in the ratio $1:2:5$. How much does each girl get ?

3.  John and David inherit £3400. If they divide the money in the ratio $2:3$ , how much does each person receive.

4.  The ratio of boys : girls in a class is 3 : 5. If there are 32 pupils in the class, how many girls are there.

5.  The ratio of sand : cement in a certain concrete is 7 : 4. If a cement mixer has been filled with 33 bags, how many of the bags were sand ?

6.  (a)  The ratio of cats : dogs in an animal hospital is 1 : 5.
        If there are 8 cats, how many dogs are there ?

    (b)  In a school show the ratio of girls : boys is 2 : 1.
        If there are 24 girls, how many boys are there ?

    (c)  In a necklace the ratio of diamonds : emeralds is 3 : 4.
        If there are 16 emeralds, how many diamonds are there ?

    (d)  An estate was shared between three brothers, Tom, John and Dave, in the ratio 2 : 3 : 5.
        If Tom received £2400, how much did each of the other two brothers receive ?

7.  Three friends, Xena,Gabrielle and Joxar, have found a treasure chest full of gold coins.
    They decide to split the coins in the ratio 5 : 3 : 1.

    (a)  If Gabrielle was to receive 24 coins, how many coins would the others get ?

    (b)  How many coins are there altogether ?

    (c)  Before they can share out the coins, Calisto arrives, and persuades
        the friends to split the coins in the ratio $(X:G:J:C)$ $9:5:4:6$.
        How many coins will each person now receive ?

1.  (a)  £15 : £35                    (b)  24kg : 56kg
    (c)  £25 : £10                    (d)  192g : 48g

2.  (a)  Harry £10;   James £30;    Bill £80
    (b)  Susan £8;    Beth £20;     Jill £28

3.  (a)  £2380        (b)  £1860

4.  15 girls

5.  (a)  16g          (b)  Dave £206;   Frank £618

6.  (a)  30 cows      (b)  72 cows      (c)  Bill 27; Dan 36; George 9


## Ratio (2) - Answers

1.  (a)  £18:£30      (b)  £70:£30     (c)  £8:£48        (d)  £40:£10
    (e)  £75:£45      (f)  £40:£35     (g)  £16:£20       (h)  £100:£140

2.  (a)  £8:£24:£56   (b)  £6:£9:£33   (c)  £15:£20:£25   (d)  £12:£24:£60

3.  John £1360;  David £2040

4.  20 girls

5.  21 bags of sand

6.  (a)  40 dogs      (b)  12 boys     (c)  12 diamonds
    (d)  John £3600;  Dave £6000

7.  (a)  Xena 40 coins;        Joxar  8 coins
    (b)  72 coins
    (c)  Xena 27 coins; Gabrielle 15 coins; Joxar 12 coins; Calisto 18 coins.