

Ratio worksheet answers

Mathematics for A-level Science

Practice your understanding

Simplify the following ratios (Example $6:4 = 3:2$):

1. $120:50 = 12:5$

5. $24:72 = 1:3$

2. $64:24 = 8:3$

6. $18:90 = 1:5$

3. $13:52 = 1:4$

7. $56:88 = 7:11$

4. $100:10\,000 = 1:100$

8. $36:144 = 1:4$

Find x by scaling the ratio.

9. $1:2 = 4:x$ ($= 8$)

12. $x:160 = 2:8$ ($= 40$)

10. $8:3 = x:9$ ($= 24$)

13. $49:x = 2:4$ ($= 98$)

11. $25:10 = x:2$ ($= 5$)

14. $58.5:18 = x:4$ ($= 13$)

15. A toy is made from red bricks and yellow bricks.

Number of red bricks: Number of yellow bricks = $5:2$.

There are 210 more red bricks than yellow bricks.

How many red bricks are in the toy? = 350 red bricks (140 yellow bricks)

16. There are 100 balls in a bag. The balls are red, blue, green or white. The ratio of blue to red is $5:1$. There are twice as many blue as green. $\frac{1}{4}$ of the balls are green.

How many white balls are in the bag? = 15 white balls

17. One day, 460 people visit a zoo. 280 are adults. The ratio of women to men is $4:3$.

180 are children. $\frac{3}{5}$ of them are boys. Jane says that altogether there were more females visiting the zoo.

Show that she is correct.

280 adults in a $4:3$ ratio of women to men = 160 women and 120 men.

180 children where $\frac{3}{5}$ are boys = 108 boys and 72 girls

228 men and boys visited the zoo and 232 women and girls visited the zoo.