



## Answers: TestLife 11+ Mixed Maths Test 1

- $(6 \times 10^3) + 9 =$**   
**6009** –  $6 \times 1000 = 6000$ ; then  $6000 + 9 = 6009$ .
- $5/6 + 1/12 + 1 =$**   
Convert all to twelfths:  $10/12 + 1/12 + 12/12 = (10+1+12)/12 = 23/12$
- $120 - (7 \times 8) =$**   
**64** –  $7 \times 8 = 56$ ; then  $120 - 56 = 64$ .
- $0.094 \text{ L} = \underline{\hspace{2cm}} \text{ ml}$**   
**94 ml** – Multiply by 1000 to convert litres to millilitres.
- $(4.86 \times 5) =$**   
**24.3** – 4.86 multiplied by 5 gives 24.3.
- $£34 \div 100 = \underline{\hspace{2cm}} \text{ p}$**   
**3400 p**  $\div 100 = 34 \text{ p}$ .
- $720 \text{ g} + 0.4 \text{ kg} = \underline{\hspace{2cm}} \text{ kg}$**   
**1.12 kg** –  $720 \text{ g} = 0.72 \text{ kg}$ ;  $0.72 + 0.4 = 1.12 \text{ kg}$ .
- $(1/25) \times 100 = \underline{\hspace{2cm}} \%$**   
**4%** – 1 divided by 25 is 0.04; times 100 is 4%.
- $3 \text{ h } 12 \text{ min} + 1 \text{ h } 48 \text{ min} = \underline{\hspace{2cm}} \text{ h } \underline{\hspace{2cm}} \text{ min}$**   
**5 h 0 min** –  $12 + 48 = 60 \text{ min} = 1 \text{ hour}$ ; total  $3 + 1 + 1 = 5 \text{ hours}$ .
- $80\% \text{ of } 25 \text{ kg} = \underline{\hspace{2cm}} \text{ kilos } \underline{\hspace{2cm}} \text{ grams}$**   
**20 kilos 0 grams** – 80% of 25 kg is 20 kg.
- $6 \div 600 =$**   
**0.01** – 6 divided by 600 equals 0.01.
- (a)  $24\text{p} = \underline{\hspace{2cm}} \%$  of  $£1$**   
**24%** – 24p out of 100p is 24%.  
**(b)  $30 \text{ cm} = \underline{\hspace{2cm}} \%$  of  $1 \text{ m}$**   
**30%** – 30 cm out of 100 cm is 30%.



## Answers: TestLife 11+ Mixed Maths Test 2

- $20 \times 50 \times 100$**   
(a) **100,000** – Multiplying step-by-step:  $20 \times 50 = 1000$ ;  $1000 \times 100 = 100,000$   
(b) **One hundred thousand**
- $£6.80 \times 15 = £$**   
**102.00** –  $£6.80 \times 15 = £102.00$
- $1 = 1/3 + 1/6 + ?$**   
 $1/3 + 1/6 = 1/2$ , so the missing part is  $1 - 1/2 = 1/2$
- $12 - 7.45 =$**   
**4.55** – Simple subtraction.
- $450 \text{ min} = \underline{\hspace{1cm}} \text{ h } \underline{\hspace{1cm}} \text{ min}$**   
**7 h 30 min** –  $450 \div 60 = 7$  remainder 30.
- $1/4 \text{ of } £5.60 = £$**   
**1.40** – Divide £5.60 by 4.
- $0.325 \text{ L} = \underline{\hspace{1cm}} \text{ ml}$**   
**325 ml** – Multiply by 1000 to convert litres to millilitres.
- $30\% \text{ of } £9.00 = £$**   
**2.70** –  $30\% \times 9 = £2.70$ .
- $1.8 \text{ m} + 65 \text{ cm} = \underline{\hspace{1cm}} \text{ cm}$**   
**245 cm** –  $1.8 \text{ m} = 180 \text{ cm}$ ;  $180 + 65 = 245 \text{ cm}$ .
- (a)  **$2\% \text{ of } £1 = 2 \text{ p}$**  –  $2\% \text{ of } 100\text{p} = 2\text{p}$   
(b)  **$15\% \text{ of } £1 = 15 \text{ p}$**  –  $15\% \text{ of } 100\text{p} = 15\text{p}$
- $5200 \text{ mm} = \underline{\hspace{1cm}} \text{ m}$**   
**5.2 m** – Divide by 1000 to convert mm to metres.
- $(4 \text{ kg } 800 \text{ g}) \div 8 = \underline{\hspace{1cm}} \text{ g}$**   
**600 g** –  $4.8 \text{ kg} = 4800 \text{ g}$ ;  $4800 \div 8 = 600 \text{ g}$ .



## Answers: TestLife 11+ Mixed Maths Test 3

- 1.  $50,000 + 2000 + 90 + 6 =$   
 $52,096$  – Add all values together.**
- 2.  $6 \times 9 \times 4 =$   
 $216$  – Multiply:  $6 \times 9 = 54$ ; then  $54 \times 4 = 216$ .**
- 3.  $7 \text{ L } 750 \text{ ml} - 1\frac{1}{2} \text{ L} =$  \_\_\_\_\_ L \_\_\_\_\_ ml  
 $6 \text{ L } 250 \text{ ml} - 1\frac{1}{2} \text{ L} = 1 \text{ L } 500 \text{ ml}$ ; subtract:  $7 \text{ L } 750 \text{ ml} - 1 \text{ L } 500 \text{ ml} = 6 \text{ L } 250 \text{ ml}$ .**
- 4.  $\frac{3}{4}$  of  $\pounds 56 = \pounds$   
 $42$  –  $56 \div 4 = 14$ ;  $14 \times 3 = 42$ .**
- 5. (a)  $4\frac{3}{5} = \frac{23}{5}$  – Convert to improper:  $(4 \times 5 + 3) / 5 = 23/5$   
(b)  $5\frac{2}{5} = \frac{27}{5}$  – Convert to improper:  $(5 \times 5 + 2) / 5 = 27/5$**
- 6.  $\pounds 8.45 +$  \_\_\_\_\_ FIVES =  $\pounds 10$   
 $\pounds 10 - \pounds 8.45 = \pounds 1.55$  ( $1.55 / 5 = 31$  coins)**
- 7.  $4820 \text{ m} =$  \_\_\_\_\_ km \_\_\_\_\_ m  
 $4 \text{ km } 820 \text{ m} - 1000 \text{ m} = 1 \text{ km}$ ;  $4820 \div 1000 = 4 \text{ km}$  and  $820 \text{ m}$  remaining.**
- 8.  $180^\circ - (72^\circ + 68^\circ) =$  \_\_\_\_\_  $^\circ$   
 $40^\circ - 72 + 68 = 140$ ;  $180 - 140 = 40$ .**
- 9. (a)  $12 \div 25 = 48\%$  – Divide then  $\times 100$ :  $12/25 = 0.48 \times 100 = 48\%$   
(b)  $0.48 = 48\%$  – Move decimal two places right.**
- 10. Round  $7.036$  to two decimal places =  
 $7.04$  – 3 is followed by 6, so round up.**
- 11.  $5^3 - 5^2 =$   
 $100 - 5^3 = 125$ ,  $5^2 = 25$ ;  $125 - 25 = 100$ .**
- 12.  $\pounds 5.60 \div 8 =$  \_\_\_\_\_ p remaining \_\_\_\_\_ p  
 $70 \text{ p remaining } 0 \text{ p}$  –  $\pounds 5.60 = 560\text{p}$ ;  $560 \div 8 = 70\text{p}$ , no remainder.**



## Answers: TestLife 11+ Mixed Maths Test 4

- Write in words the number which is 600 less than 70,000**  
**Sixty-nine thousand four hundred**
- Find in £s the total of 22p, 19p, 35p and 14p.**  
**£0.90** – Total = 90p = £0.90
- Change to mixed numbers:**  
(a)  $29/4 = 7 \frac{1}{4} - 4 \times 7 = 28$ ; remainder 1  
(b)  $45/7 = 6 \frac{3}{7} - 7 \times 6 = 42$ ; remainder 3
- Difference between 4 FIFTIES and the sum of 10 FIVES & 5 TWOS**  
**200** –  $(50+10) = 140$
- How many 20 g portions in 3 kg?**  
**150** – 3 kg = 3000 g;  $3000 \div 20 = 150$
- Change from £10 after spending £6.78**  
**£3.22** – £10.00 – £6.78 = £3.22
- Factors of 72 from 3, 4, 6, 8, 9**  
**3, 4, 6, 8, 9** – All listed numbers divide 72 exactly.
- What percentage of 3 litres is 450 ml?**  
**15%** – 3 L = 3000 ml;  $450/3000 \times 100 = 15\%$
- Round:**  
(a) **46.72** → **47** – Nearest whole number  
(b) **257,980** → **258,000** – Nearest 1000
- Lowest terms:**  
(a) **80%** =  $\frac{4}{5} - 80/100 = 4/5$   
(b) **0.125** =  $\frac{1}{8} - 0.125 = 125/1000 = 1/8$
- £1.20 per kg. 600g costs =**  
**72p** – 600g = 0.6 kg;  $1.20 \times 0.6 = 0.72 = 72p$
- Area of square with 25 cm side =**  
**625 cm<sup>2</sup>** – Area = side<sup>2</sup> =  $25 \times 25 = 625$



## Answers: TestLife 11+ Mixed Maths Test 5

- How many thousandths must be added to 8.956 to make 10?**  
 $10 - 8.956 = 1044$  thousandths
- Jack buys 3 kg of oranges at 42p per kg. What change from £2?**  
 $3 \times 42\text{p} = 126\text{p}$ ;  $\text{£}2 = 200\text{p}$ ;  $200 - 126 = 74\text{p}$
- Liah turns  $\frac{1}{2}$  of a right angle anticlockwise from NE.**  
NE turning  $45^\circ$  anticlockwise reaches **North**.
- 54 km in 45 min  $\rightarrow$  1 hour?**  
 $54 \div 45 \times 60 = 72$  km/h
- 200g per nut. How many nuts in 4 kg?**  
 $4 \text{ kg} = 4000\text{g}$ ;  $4000 \div 200 = 20$
- There are **450 men** (5 blue bars) and **350 women** (4 pink bars).  
Total = 5 (men) + 4 (women) + 6 (kids) = 15 blocks.  
  
(a) **Men =  $\frac{5}{15} = \frac{1}{3}$**  (b) **Women =  $\frac{4}{15}$**  (c) **Kids =  $\frac{6}{15} = \frac{2}{5}$**
- £30 is 50% of the remaining money. So, the remaining money was £60**  
**£60 is 75% of the total money as 25% was spent on toy.**  
Therefore Total = **£80**
- Angle QPR and PRQ from semicircle with triangle inscribed at diameter:**  
(a) **Angle QPR =  $45^\circ$**   
(b) **Angle PRQ =  $45^\circ$**   
The semicircle triangle at the centre is  $90^\circ$ , so the other two must be  $45^\circ$  each (isosceles).
- Bus departs at 18:35 and arrives 1h 25min later**  
Add 1h  $\rightarrow$  19:35, then 25 min  $\rightarrow$  20:00
- Area =  $96 \text{ m}^2$ , length = 12 m  $\rightarrow$  width = ?**  
Area  $\div$  length =  $96 \div 12 = 8\text{m}$
- Scale 1 mm : 150 m, line = 3.2 cm = 32 mm**  
 $32 \times 150 = 4800 \text{ m} = 4.8 \text{ km}$
- Box: L = 10 cm, W = 6 cm, H = 5 cm  
(a) **One side =  $6 \times 5 = 30 \text{ cm}^2$**  (b) **One end =  $10 \times 5 = 50 \text{ cm}^2$**   
(c) **Top/bottom =  $10 \times 6 = 60 \text{ cm}^2$**



## Answers: TestLife 11+ Mixed Maths Test 6

1. Multiply  $(4.5 + 3.2) \times 0.6$   
 $4.5 + 3.2 = 7.7 \rightarrow 7.7 \times 0.6 = \mathbf{4.62}$
2. 90 days after 1st September  
September: 30 days, October: 31 days, November: 29 more days  
Date = **30th November**
3. Angles given:  $52^\circ, 101^\circ, 143^\circ, 88^\circ$   
Acute: angles  $< 90 \rightarrow 52^\circ, 88^\circ$  (a)  **$52^\circ, 88^\circ$**   
Obtuse: angles between  $90^\circ$  and  $180^\circ \rightarrow 101^\circ, 143^\circ$  (b)  **$101^\circ, 143^\circ$**
4. Add  $520 \text{ g} + 760 \text{ g} + 310 \text{ g} = 1590 \text{ g} \rightarrow$  Convert to kg:  $1590 \div 1000 = \mathbf{1.59 \text{ kg}}$
5. Convert  $0.65 \text{ m} = 650 \text{ mm} \rightarrow 900 \text{ mm} - 650 \text{ mm} = \mathbf{250 \text{ mm}}$
6.  $\text{£}7.40 = 740\text{p} \rightarrow 740 \div 20 = \mathbf{37 \text{ coins}}$
7.  $15 \text{ min} = 0.25 \text{ h} \rightarrow 24 \div 0.25 = \mathbf{96 \text{ km/h}}$
8.  $800 \div 0.8 = \mathbf{1000 \text{ times}}$
9. (a)  $22 \div 100 \times 100 = \mathbf{22\%}$   
(b)  $450 \div 1000 \times 100 = \mathbf{45\%}$
10.  $\text{£}36 \div 480 \text{ m}^2 = \mathbf{\text{£}0.075 \text{ per m}^2}$
11. (a)  $12\frac{2}{3} = 12.666\dots \rightarrow$  rounded to **13**  
(b)  $\text{£}18.46 \rightarrow$  rounded to **£18**
12. Area  $\div$  width =  $39 \div 3 = \mathbf{13 \text{ m}}$



## Answers: TestLife 11+ Mixed Maths Test 7

- Value of 14 tens =  $14 \times 10 = 140p$  Value of 3 fifties =  $3 \times 50 = 150p$   
Value of 7 fives =  $7 \times 5 = 35p$   
Total of second part =  $150 + 35 = 185p$   
Difference =  $185 - 140 = 45p$
- Out of 360 children in a school 40% were boys. So, **Number of Girls:** 60% of 360 =  $36 \times 6 = 116$
- Angles on a straight line =  $180^\circ$   
 $x = 180 - (28 + 37) = 180 - 65 = 115^\circ$
- $\frac{2}{5}$  of 6 L =  $6 \times 2 \div 5 = 12 \div 5 = 2.4$  L  
= 2 L and 0.4 L = 400 ml  $\rightarrow$  2 L 400 ml
- Convert to decimals:  
 $\frac{4}{9} \approx 0.444$ ,  $\frac{5}{12} \approx 0.417$ ,  $\frac{2}{7} \approx 0.286$   
(a) Largest =  $\frac{4}{9}$   
(b) Smallest =  $\frac{2}{7}$
- (a) Round 7,986 to nearest 1000  $\rightarrow$  8,000  
(b) Difference =  $8,000 - 7,986 = 14$
- One return journey =  $2 \times 920 = 1840$  m  
5 days =  $5 \times 1840 = 9200$  m = 9.2 km  $\rightarrow$  9.2 km  
(a)  $72 \text{ cm} \div 9 \text{ cm} = 8$  strips  
(b)  $8 \text{ strips} \times 45 \text{ cm} = 360 \text{ cm} = 3.6 \text{ m} \rightarrow 3.6 \text{ m}$
- $\pounds 4.40 \div 80 = 5.5p$  each  
 $20 \times 5.5p = 110p$
- Sara: 1st July 2009 to 1st Jan 2020 = 10 years 6 months  $\rightarrow$  10 years 6 months  
Leo: 1st April 2006 to 1st Jan 2020 = 13 years 9 months  $\rightarrow$  13 years 9 months
- 6% of  $\pounds 5.00 = 0.06 \times 500p = 30p$   
New price =  $500 + 30 = 530p$
- (a) Arc =  $60^\circ$  out of  $360^\circ \rightarrow 60/360 = \frac{1}{6}$   
(b) Length =  $\frac{1}{6} \times 60 = 10$  cm



## Answers: TestLife 11+ Mixed Maths Test 8

- $100 + \frac{1}{8} + \frac{1}{1000} = 100 + 0.125 + 0.001 = 100.126$
- $5\frac{1}{4} = \frac{21}{4} \rightarrow \frac{21}{4} \times 7 = \frac{147}{4} = 36.75$
- $\text{£}2 - (35\text{p} + 63\text{p}) = \text{£}2 - 98\text{p} = \text{£}2 - \text{£}0.98 = \text{£}1.02$
- $1\frac{1}{2} \text{ L} = 1.5 \text{ L} = 1500 \text{ ml} \rightarrow 1500 \text{ ml} - 750 \text{ ml} = 750\text{ml}$
- $3.8 - 2.76 = 1.04$
- $2\% = \frac{2}{100}$
- $H \times 300 \text{ kg} = 3 \text{ kg} \rightarrow H = 3 \div 300$
- From 7:43 a.m. to 12:00 noon = 4 h 17 min
- $553 \text{ mm} = 5 \text{ cm } 53 \text{ mm} \rightarrow 553 \div 10 = 55.3 \text{ cm} \rightarrow 55 \text{ cm } 3 \text{ mm}$
- $830 \text{ g} \times 5 = 4150 \text{ g} \rightarrow 4150 \div 1000 = \text{**}4.15 \text{ kg**}$
- (a)  $10\% \text{ of } \text{£}12.00 = 12 \times 0.10 = \text{£}1.20$   
(b)  $70\% \text{ of } \text{£}12.00 = 12 \times 0.70 = \text{£}8.40$
- $\frac{3}{5} \text{ of } \text{£}1.20 = (\frac{3}{5}) \times 1.20 = 3 \times 0.24 = \text{£}0.72$



## Answers: TestLife 11+ Mixed Maths Test 9

1.  $(4.8 + 3.7) \times 0.5 = 8.5 \times 0.5 = 4.25$
2.  $25\% \text{ of } \pounds 4.20 = 4.20 \times 0.25 = \pounds 1.05 \rightarrow 4.20 - 1.05 = \pounds 3.15$
3.  $300\% \text{ of } 45 = 3 \times 45 = 135$
4.  $32 \div 0.8 = 40$
5.  $1 \text{ week} = 7 \text{ days} \rightarrow 28 \text{ weeks} = 28 \times 7 = 196 \text{ days}$
6.  $480 \div 1000 \times 100 = 48\%$
7. From 08:55 to 12:40 = 3 h 45 min  $\rightarrow$  3 h 45 min
8.  $3 \text{ kg} = 6 \times \frac{1}{2} \text{ kg} \rightarrow 6 \times 22\text{p} = 132\text{p}$
9. Circle is divided into 10 equal parts:
  - (a) Grey = 3 parts =  $\frac{3}{10} = 30\%$
  - (b) Black = 1 part =  $\frac{1}{10} = 10\%$
  - (c) Plain/white = 6 parts =  $\frac{6}{10} = 60\%$
10. (a) 33.6 km  $\rightarrow$  rounded to nearest km = 34 km  
(b) 4.275 kg  $\rightarrow$  rounded to nearest kg = 4 kg
11.  $\pounds 9.60 \div 24 = \pounds 0.40 \text{ each} \rightarrow 6 \times 0.40 = \pounds 2.40$
12. Area  $\div$  width =  $42 \div 3 = 14 \text{ m}$



## Answers: TestLife 11+ Mixed Maths Test 10

- An article costs 57p and is paid for with a £1 coin. Fill in the blanks for three coins given as change.  
 $4 \times 10\text{p}, 2 \times 1\text{p}, 1 \times 1\text{p}$
- In the number 45.583, how many times greater is the value of the digit 5 in the units place than the value of the digit 5 in the tenths place?  
Units 5 = 5; tenths 5 = 0.5  $\rightarrow 5 \div 0.5 = 10$
- When a number is divided by 7, the answer is 54. What is the number?  $54 \times 7 = 378$
- Four children receive 60p, 72p, 48p, and 54p. Find the average.  
 $(60 + 72 + 48 + 54) \div 4 = 234 \div 4 = 58.5\text{p}$
- A cask contained 84 l of juice. 12% was wasted. Find how much remained in l and ml.  
12% of 84 = 10.08 l  $\rightarrow$  remaining =  $84 - 10.08 = 73.92 \text{ l} = 73 \text{ l } 920 \text{ ml}$
- ABC is an isosceles triangle with apex angle  $24^\circ$ . Find the base angles.  
Base angles =  $(180 - 24) \div 2 = 78^\circ$  each
- Two missing members of the set of factors of 48 are 3 and 16
- Ron's weight increased from 36 kg to 39 kg.  
(a) Increase fraction =  $3 \div 36 = 1/12$   
(b) Percentage =  $(3 \div 36) \times 100 = 8.33\%$
- A:  $8 \times 55\text{p} = 440\text{p}$  for 2.4 kg B:  $\pounds 1.50 \times 2.4 = \pounds 3.60 = 360\text{p}$   
B is cheaper by  $440 - 360 = 80\text{p}$  Answer: **B is better by 80p**
- From the rectangular card, a triangular shaded part is cut off. Find its area.  
Triangle area =  $\frac{1}{2} \times 5 \times 8 = 20 \text{ cm}^2$
- A tin of paint covers  $6 \text{ m}^2$ . The room floor is  $5 \text{ m} \times 4 \text{ m}$ .  
(a) Area =  $20 \text{ m}^2 \rightarrow$  tins =  $20 \div 6 = 3.33 \rightarrow 4$  tins  
(b) Cost =  $4 \times \pounds 5.20 = \pounds 20.80$
- Cube with side 6 cm.  
(a) Surface area =  $6 \times 6^2 = 6 \times 36 = 216 \text{ cm}^2$   
(b) Volume =  $6^3 = 216 \rightarrow$  number of  $1 \text{ cm}^3$  cubes = 216



## Answers: TestLife 11+ Mixed Maths Test 11

- Write in decimal  $\frac{1}{3}$  of 200.  
 $\frac{1}{3}$  of 200 =  $200 \div 3 = 66.666\dots = \mathbf{66.67}$
- From the total of 95p and £1.24 take out 60p.  
 $95\text{p} + \text{£}1.24 = \text{£}2.19 \rightarrow \text{£}2.19 - \text{£}0.60 = \mathbf{\text{£}1.59}$
- Find the product of 0.7 and 0.8.  
 $0.7 \times 0.8 = \mathbf{0.56}$
- Find the total number of days in the months of April, May and June.  
 $\text{April } 30 + \text{May } 31 + \text{June } 30 = \mathbf{91}$
- When a number is divided by 8 the answer is 57 remaining 3. What is the number?  
 $57 \times 8 = 456; 456 + 3 = \mathbf{459}$
- 4 articles cost 96p. Find the cost of 3 articles.  
One article =  $96 \div 4 = 24\text{p} \rightarrow 3 \times 24\text{p} = \mathbf{72\text{p}}$
- Write in fractions:  
(a) 600 g of 1 kg  $\rightarrow 600 \div 1000 = \mathbf{\frac{3}{5}}$   
(b) 120 ml of  $\frac{1}{2}$  l (500 ml)  $\rightarrow 120 \div 500 = \mathbf{\frac{12}{50} = \frac{6}{25}}$
- How many times greater is 4080 than 4.08?  
 $4080 \div 4.08 = \mathbf{1000 \text{ times}}$
- (a) 25% of £9.20  $\rightarrow 0.25 \times 9.20 = \mathbf{\text{£}2.30}$   
(b) 55% of £9.20  $\rightarrow 0.55 \times 9.20 = \mathbf{\text{£}5.06}$
- Approximate  
(a) £2.186 to the nearest penny =  $\mathbf{\text{£}2.19}$   
(b) 6.740 l to the nearest  $\frac{1}{2}$  l  $\rightarrow$  nearest 0.5 =  $\mathbf{6.5 \text{ l}}$
- 0.6 kg of apples costs £1.80. Find the cost of 900 g.  
 $900 \text{ g} = 0.9 \text{ kg} \rightarrow \text{unit cost} = \text{£}1.80 \div 0.6 = \text{£}3 \text{ per kg} \rightarrow 0.9 \times \text{£}3 = \mathbf{\text{£}2.70}$
- Find the area of the triangle (base 18 cm, height 7 cm).  
 $\text{Area} = \frac{1}{2} \times 18 \times 7 = \mathbf{63 \text{ cm}^2}$



## Answers: TestLife 11+ Mixed Maths Test 12

- The volume of a tank is  $2480 \text{ cm}^3$ . How many litres of water does it hold?  
 $1 \text{ litre} = 1000 \text{ cm}^3 \rightarrow 2480 \div 1000 = \mathbf{2.48 \text{ L}}$
- A car travels 420 km on 50 l of petrol. How many km per l is this?  
 $420 \div 50 = \mathbf{8.4 \text{ km per l}}$
- (a)  $3.12 \times 14 = \mathbf{43.68}$       (b)  $31.2 \times 1.4 = \mathbf{43.68}$
- Meal was £24.60. 12% was added as a service charge. So,  $0.12 \times 24.60 = \mathbf{£2.95 \text{ was added}}$
- Buses run at intervals of 20 minutes. Find the times of the next two buses after 10:15.  
 $10:15 + 20 \text{ min} = 10:35 \rightarrow \text{next} = 10:55 \rightarrow \mathbf{10:35, 10:55}$
- $\angle ACB = \mathbf{180^\circ - 120^\circ = 60^\circ}$ ,  $\angle BAC = \mathbf{180^\circ - (60^\circ + 48^\circ) = 72^\circ}$
- The mass of a TEN coin is 7 g. What is the mass in kg of £30 in TENS?  
 $£30 = 300 \text{ ten-pence coins} \rightarrow 300 \times 7 \text{ g} = 2100 \text{ g} = \mathbf{2.1 \text{ kg}}$
- A line 12 cm long represents an aeroplane distance at a scale of 1 mm to 40 km. Find the actual distance.  
 $12 \text{ cm} = 120 \text{ mm} \rightarrow 120 \times 40 \text{ km} = \mathbf{4800 \text{ km}}$
- The price of articles in a shop was reduced by 6p in the £1.  
(a) Reduced price of an article costing £45  $\rightarrow 6\text{p per } £ \rightarrow 45 \times 6\text{p} = 270\text{p} = £2.70 \text{ off} \rightarrow \mathbf{£42.30}$   
(b) Percentage reduction =  $6\text{p per } £ = \mathbf{6\%}$
- A rectangle measures 4 m long and 80 cm wide. Find its area in  $\text{m}^2$ .  
 $80 \text{ cm} = 0.8 \text{ m} \rightarrow \text{area} = 4 \times 0.8 = \mathbf{3.2 \text{ m}^2}$
- 6 articles cost £3.30.  
(a) Fraction of £3.30 for 4 articles =  $(4/6) \times 3.30 = \mathbf{£2.20}$   
(b) Cost of 5 articles =  $(5/6) \times 3.30 = \mathbf{£2.75}$
- A block of wood is 1.5 m long with a 3-cm square cross-section. How many 3-cm cubes can be made?  $1.5 \text{ m} = 150 \text{ cm} \rightarrow 150 \div 3 = \mathbf{50 \text{ cubes}}$