

Number Revision 1 (Answers)

1) (a) $\frac{0.08}{4.5} \times 100 = 1.78$ (b) $34.80 \times \frac{100}{116} = \text{£ } 30$

2)(a) (i) 335g, 345g (ii) 5.25kg, 5.35kg

(b) (i) $\frac{585}{12.35} = 47.37 \text{ m/s}$ (ii) $\frac{575}{12.45} = 46.18 \text{ m/s}$ (iii) 50m/s

3) (a) $\frac{3.9}{240} \times 320 = 5.2 \text{ kg}$ (b) $\frac{64}{5} \times 7 = 89.6 \text{ km}$

4) (a) $\frac{720}{3} \times 5 = 1200 \text{ girls}$ (b) $\frac{8}{10} \times 3 = 2.4 \text{ litres}$

5) (a) 3.26 (b) 530000 (d) 0.037 (e) 12.70

6) (a) $3^{-2} = \frac{1}{9}$ (b) $5^0 = 1$ (c) $8^{\frac{1}{3}} = 2$ (d) $25^{-\frac{1}{2}} = \frac{1}{5}$

7) (a) $\frac{10}{\frac{2}{3}} = 15 \text{ mph}$ or $\frac{10}{40} \times 60 = 15 \text{ mph}$

(b) $\frac{120}{50} = 2.4 \text{ hours or 2hrs 24min}$

8) (a) 1.8649×10^6 (b) $209118 = 2.10 \times 10^5$

9) (a) 11.0 (b) 1.93 (c) 1.43×10^{-23}

10)(a) (i) $1260 = 2 \times 2 \times 3 \times 3 \times 5 \times 7$ (ii) $1848 = 2 \times 2 \times 2 \times 3 \times 7 \times 11$

(b) $\text{HCF} = 2 \times 2 \times 3 \times 7 = 84$ $\text{LCM} = \frac{1260 \times 1848}{84} = 27720$

(c) (i) {1,2,4,5,10,20} (ii) {1,2,3,4,6,8,12,16,24,48} (iii) {1,5,25}

Number Revision 2 (Answers)

1) (a) $3.6 \times \frac{115}{100} = 4.14 \text{ m}$ (b) $19.50 \times \frac{100}{65} = \text{£ } 30$

2)(a) (i) 375g, 385g (iv) 5.85kg, 5.95kg (to 1dp)

(b) (i) $\frac{465}{13.15} = 35.36 \text{ m/s}$ (ii) $\frac{455}{13.25} = 34.33 \text{ m/s}$ (iii) 34 or 35 m/s

3) (a) $\frac{5.6}{420} \times 270 = 3.6 \text{ kg}$ (b) $\frac{6}{64} \times 80 = 7.5 \text{ litres}$

4) (a) $\frac{720}{4} \times 3 = 540 \text{ boys}$ (b) $\frac{5.5}{11} \times 9 = 4.5 \text{ litres}$

5) $\frac{180}{80} = 2.25 \text{ hours or 2hrs 15 minutes}$

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6) (a) 2.5×10^7

(b) $32412 = 3.24 \times 10^4 (3\text{sf})$

7) (a) 0.09 (b) 10

Number Revision 3 (Answers)

- 1) (a) 34.6% (b) £28.42 (c) 3295
2) (a) 17.5% (b) £60 (c) £2000
3) (a) 1200 (b) 2.4 litres
4) 134.75 metres
5) (a) 360000cm^3 or $0,36\text{m}^3$ (b) 37800 cm^2 or $3,78\text{ m}^2$

Number Revision 4 (Answers)

- 1) (a) $2750 \leq a < 2850$ (b) $379.5 \leq b < 380.5$ (c) $0.0465 \leq c < 0.0475$
(d) $1043625 \leq ab < 1084425$ (e) $57895 \leq \frac{a}{c} < 61290$
- 2) (a) $15954.79\dots = 1.50 \times 10^4$ (3sf) (b) 1.85×10^{-62}
- 3) 1 person would take $15 \times 12 = 180$ days
So 20 people would take $180 \div 20 = 9$ days
- 4) $2 + 3 + 4 = 9$ parts
 $180^\circ \div 9 = 20^\circ$ for each part
So 40° , 60° and 80°
- 5) $2 \times 5000 = 10000\text{cm} = 100\text{m}$ wide
 $3 \times 5000 = 15000\text{cm} = 150\text{m}$ long
Area = $150 \times 100 = 15000\text{m}^2$
- 6) (a) $50 \div 0.735 = \$68.03$
(b) $50 \times 0.735 = \text{€}36.75$
- 7) (a) Original price = 100%, so new price = $100 - 18 = 82\%$
So $0.82 \times x = \text{£}98.40$
 $x = \frac{98.40}{0.82} = \text{£}120$
(b) $\frac{8}{150} \times 100 = 5\frac{1}{3}\%$
(c) $900 \times 0.8^5 = \text{£}294.91$
- 8) (a) $120\text{ km/h} = \frac{120}{60}\text{ km/minute} = 2\text{ km/minute}$
So in 5 minutes it travels $5 \times 2 = 10\text{ km}$
(b) Speed = $\frac{1}{25} = 0.04\text{ km/s}$
 $0.04 \times 3600 = 144\text{ km/h}$
(c) $T = \frac{D}{S} = \frac{70000\text{m}}{28\text{m/s}} = 2500\text{s}$ (or 41 minutes 40 seconds)