

SHARP

Worksheet 1 Memorandum – General calculations

Mathematical Literacy – Grade 12

1. a) $=$
 $3 = 260 - 80$
 $= 60$
- b) $=$
 $= 260 - 80 - 60$
 $= 120$
- c) $60 \quad 120 \quad 80 \quad 3 \quad 6 \quad 4$
- d) green : red $4 \quad 6$
 $100 \times \frac{6}{4} = 150$ red beads
- e) green : blue $4 \quad 3$
 $100 \times \frac{3}{4} = 75$
- f) $100 + 150 + 75 = 325$
2. a) $42 \div 6 \times 2 + 3 \times 2 \div 8 \times 6 = 18\frac{1}{2}$
- b) $\frac{2 \times 3}{4} \times \frac{5}{6} \times \frac{7}{2} \div \frac{9}{3} = 5\frac{5}{6}$
- c) $7^3 \times 4^6 \div 2^{11} = 686$
- d) $\frac{\sqrt{256}}{4} = \frac{16}{4} = 4$
- e) $35\% \quad (280 \times 3^3) = 2\,646$
- f) $\frac{3}{4} + \frac{1}{2} - \frac{1}{6} + 1\frac{1}{3} = 2\frac{5}{12}$
- g) $4 \quad 7 \times \frac{3 \quad 2}{4} \times \dots$
 $= \quad 7 \quad 6 \quad 10$
- h) $\frac{3}{7} \quad 21^2$
 $= 189$
- i) $\frac{2}{3} + \frac{5}{8} + \frac{9}{12} - \frac{1}{7}$
 $= 1\frac{151}{168}$
- j) $\sqrt[3]{216} \times 11^2 + 24 \div \sqrt[4]{10000}$
 $= 6 \times 121 + 24 \div 10 = 728\frac{2}{5}$
- k) $\frac{27}{35} \times 100 = 77.14 \quad 77\frac{1}{7}$
- l) $482^4 - 100 \div 10 = 232\,314$
3. a) $10 \div 1000 \quad 0.01$
- b) $3.6 \times 1000 \times 1000 \quad 3\,600\,000$
- c) $50 \div 1000 \quad 0.05$
- d) $10\,042 \div 100 \quad 100.42$
- e) $4 \times 60 \times 60 \quad 14\,400$
- f) $0.5 \div 100 \div 1000 \quad 0.000005$
- g) $750 \div 60 \quad 12.5$
- h) $23.54 \div 100 \quad 2\,354$
 $12 \quad 30$
- i) $3 \times 365 \times 24 \times 60 \times 60$
 $94\,608\,000$
- j) $1.5 \times 1000 \quad 1500$
4. a) $3 \times 80 \times 4 = 960$
- b) $1.5 \times 12 \div 2 = 9 \quad 2$



c) $45 \times 12 = 540$
 $9 \times 2 \times 80 = 1440$
 $= 540 + 1440 = 1980$
d) $((1.5 \times 80) + 45) + 40\% = 231$

5. a) $\frac{9}{19} \times 100 = 47.37\%$ b) $\frac{50-24}{50} \times 100 = 52\%$
c) $\frac{7}{43} \times 100 = 16.28\%$ d) $\frac{26}{40} \times 100 = 65\%$
e) $\frac{158-146}{158} \times 100 = 7.59\%$ f) $\frac{21}{24} \times 100 = 87.5\%$
g) $\frac{25-14}{25} \times 100 = 44\%$ h) $\frac{18-10}{18} \times 100 = 44.44\%$

6. a) $2.88 \times 6 = 17.28$ b) $8.50 \times 4 = 34.00$
c) $17.00 \div 4 = 4.25$ d) $9.20 \times 8 = 73.60$
e) $10.56 \div 4 = 2.64$ f) $122.40 \div 24 = 5.10$
g) $\frac{12}{1.5} \times 12.00 = 96.00$

7. a) $4 \times 30\text{min}(19) + 3 \times 30\text{min}(19) + 2 \times 30\text{min}(20) + 3 \times (10) + 3 \times (14) = 16 \times 30$

b) $300 \div (3 \times 60) = 1.67$

c) $\frac{+}{180+45} \times 100 =$ Assume $x =$ the mark obtained for paper 1
 $\frac{(+) }{225} \times 100$ $y =$ the mark obtained for paper 2

d) Total hours = 2h (English P1) + 2h 30 min (English P2) + 2h (English P3) + 2h (isiZulu P1) + 2h (isiZulu P2) + 2h (math lit P1) + 2h 15 min (math lit P2) + 3h (geography P1) + 1h 30 min (geography P2) + 3h (EGD P1) + 3h (EGD P2) + 2h (CAT Prac) + 3h (CAT theory) + 1h 30 min (LO) = 31 hours 45 minutes

e) $180 \times \frac{80}{100} = 144$ $180 - 144 = 36$

