

Booklet 1A answers

- page 3: 1i True; ii True; iii True; iv False 2 b (35) 3 b (350) 4 i T; ii F; iii F; iv F  
 $4a < b < c = d > e = f > g > h > i <$
- page 4: 1a 5, b. 9 c. 2 3 d. 3 e 13 f. 7 2 g. 10 h. 7143.9 i. 3.1405  
 $2a < b. > c. > d. > e. < f. < g. > h. = i. <$   
 3a. 23 29 b. 53, 59, 61, and/or 67.
- page 6: 1a. 5, 55, 555, 5555 b.  $1/5555, 1/555, 1/55, 1/5$  c. 0.17,  $\frac{1}{4}, \frac{1}{3}, 0.5$   
 d.  $0.001, 10^{-1}, 3^{-1}, \frac{1}{2}$   
 2. 0 does not need to be in centre. Are values appropriately space?  
 3. only e is  $>$  than one half – it should be just past the half-way point and the others should e appropriately distributed below the middle.  
 4. the centre should be empty with bdc closer to 0 and fae closer to 1 (in that order)
- page 7: 1  $1/100$  and 1%; 2.  $17/1000$  is the only one 3. 33.333% and 0.333 are very close  
 4.  $3/100, 3\%$   
 5a.  $33/100$  b.  $2/100$  c.  $0.27/1000 = 27/1000$  d.  $127/100$  e.  $0.35/100 = 35/10000$   
 6a.  $22/100$  b.  $5/100$  c.  $5/100$  d.  $34/100$  e.  $95/100$  f.  $128/100$
- Page 8 : 7. a. 0.3 b. 0.25 c. 0.2 d. 0.4 e. 0.05 f. 0.95; 8. 30% b. 25% c. 20% d. 40% e. 5% f. 95%;  
 9. a. 0.3333 (repeating) b. 0.02 c 0.27 d. 1.27 e. 0.35 f. 1.52; **10a.** 22% b. 25% c. 5%  
 d. 34% e. 95% f. 128%; **11a**  $2/3$  b  $5/7$  c  $83/100$  d  $1/6$  e  $999/1000$
- page 9: 1i F ii F iii F iv T 2 b; 3 d; 4a T; b F; c F; d T; 5. a  $22/35, b 33/72, c 3/17, d 7:9$   
 $6a > b < c > d < e = f =$
- page 10 : 1a 0.56 b 0.046 c 0.023; **2a** 3.2 b 0.32 c 0.64 d 8 e 9; **3a**  $\frac{3}{4}$  b  $4/5$  c  $6/5$  or 1 and  $1/5$  **4a** 2 b  $1\frac{1}{2}$  or  $3/2$  c  $1/3$  d  $2/6$  or  $1/3$
- page 11 **5a**  $1/6$  b  $1/3$  c  $1.5/4$  or  $3/8$  d  $1/50$ ; **6a** 8 b 15 c 12 d 9; 7a 2 b  $4/3$  c 1 d  $\frac{1}{2}$  e 2
- page 12: 1a.  $10^2$  b.  $10^6$  c.  $10^{-2}$  d.  $10^{-4}$  e.  $10^1$  f.  $10^{-5}$   
 2.a. 30 b. 31 c. 1 d.3.1 e.0.01 f.3140 g.314 h.31.45 i.31.4 j.0.1 k.3140 l. 101  
 3.a. 0.3 b.0.31 c. 0.3 d. 0.31 e. 31.4 f. 0.01 g. 0.0001 h. 0.3145 i. 0.0314 j. 3140  
 k. 31.4 l 0.00314  
 4a. 0.3 b. 0.23 c. 0.123 d. 123 e. 0.01 f. 0.11 g. 0.00123 h. 0.00007 i. 7  
 j. 7 000 000 k. 0. 07 l 0.00007
- page 13: 1a 0.04 b 22% c 15.38% d  $\frac{43}{200}$  e 0.4815 f 75% g 33.33% h 322% i 0.81 j 73%  
 k 75.59% l 1.17 m 0.001 n 5% o 475%
- page 14: 1a 4; b 8; c 2; d 11; e. 0.8; f. 1.25 2a 9.18 b 9.18 c 8.8 d 210.25 e 23 f 9.68 g 18.718 h 3.648 i 179.76
- page 15: 1a  $\frac{1}{35}$  b  $\frac{6}{21} = \frac{2}{7}$  c  $\frac{5}{2}$  d  $\frac{24}{35}$  e  $\frac{6}{6} = 1$  f  $\frac{36}{1} = 36$  g  $\frac{1}{8}$  h  $\frac{9}{16}$  i  $\frac{6}{20}$  j  $\frac{2}{84} = \frac{1}{42}$  k  $\frac{60}{5} = 12$   
 l  $\frac{24}{6} = 4$  m  $\frac{10}{6} = \frac{5}{3} = 1\frac{2}{3}$  n  $\frac{16}{63}$  o  $\frac{30}{42} = \frac{5}{7}$
- page 16-17: 1 b e f are like, the rest are not like. 2a  $\frac{2}{3}$  b  $\frac{3}{5}$  c 9 d  $\frac{1}{5}$  e  $\frac{15}{7} = 2\frac{1}{7}$  f  $\frac{4}{6} = \frac{2}{3}$   
 3a  $\frac{10}{9} = 1\frac{1}{9}$  b  $\frac{5}{8}$  c  $\frac{10}{6} = 1\frac{2}{3}$  d  $\frac{3}{10}$  e  $\frac{67}{70}$  f  $\frac{2}{6} = \frac{1}{3}$  g  $\frac{1}{2}$  h  $\frac{233}{30} = 7\frac{23}{30}$  i  $\frac{367}{119} = 3\frac{10}{119}$
- page 18: 1a 346,000 b 345.65 c 400 d 1,003,500 e 3.003467 f. 34.75 g. 35.755

page 19: 1a -15 b +117 c -40 d +25 2 no number line available at this time

3a 10 b 2 c +1 d -5

4a 15 b 1 c -5 d 6 e 3 f +1 g -4 h 0 i 0 j 9 k 4 l 0

page 20: 1a 12 b 24 c -7 d 24 e 24 f 48 g -36 h 100 i -160 j -60 k 4 l 3 m 4 n 6 o 5 p 2 q -25

r -2 s -4 t 5 2. 4 cm 3 \$480

page 21: 1a 36 b -64 c 8 d 5 e 243 f -3 g 81 h 512 i -512 j 1

2a. 8 b  $\frac{1}{8}=0.125$  c 25 d  $\frac{1}{25}=0.04$  e  $\frac{1}{81}$  or = 0.123 f 27 g 1000 h 0.001 i 1 j 1

page 22 : exercise 1

Number in english	Decimal form	Fraction form	As power of 10
One hundred	100	100/1	$10^2$
One hundredth	0.01	1/100	$10^{-2}$
One million	1 000 000	1 000 000/1	$10^6$
One millionth	0.000001	1/1 000 000	$10^{-6}$
One thousand	1000	1000/1	$10^3$
One thousandth	0.001	1/1000	$10^{-3}$
Ten thousand	10 000	10 000/1	$10^4$
Ten thousandth	0.0001	1/10 000	$10^{-4}$
Hundred thousand	100 000	100 000/1	$10^5$
Hundred thousandth	0.00001	1/100 000	$10^{-5}$
Ten	10	10/1	$10^1$
One tenth	0.1	1/10	$10^{-1}$
Three tenths	0.3	3/10	$3.0 \times 10^{-1}$

2a 3141.5 b 500 c 3.4412 d 0.01453 e 799,003,300 f 0.003

3a  $3.445112 \times 10^6$  b  $5.0 \times 10^{-3}$  c  $1.3443 \times 10^4$  d  $1.453887 \times 10^6$  e  $7.99 \times 10^2$  f  $4.32 \times 10^{-5}$