

**UK Answers****Green****Challenge Cards**

1. "Guess & revise" or create a Venn diagram  
Answer  
5 adult Labradors  
3 puppy Labradors  
6 puppy Jack Russells
2. Takes 10<sup>th</sup> cyclist  
 $30 - (9 \times 1) = 21$ mins  
Departs 12:18pm  
Finish  $\Rightarrow$  12:39pm
3. p.1  $\rightarrow$  9 = 9 digits  
p.10  $\rightarrow$  19 = 20 digits  
p.20  $\rightarrow$  99 = 160 digits  
p.100  $\rightarrow$  109 = 30 digits  
p.110  $\rightarrow$  124 = 45 digits  
 $\Rightarrow$  264 digits in 124 pages
4. 1 knot = 1.85 km/h  
9 knots  $\times$  1.85 = 16.6 km/h  
18h  $\times$  16.6km/h = 300 km  
300km  $\times$  2 = 600km  
600km  $\div$  (18 + 2) hours  
= 30km/h
5. Rufus  
1000ml  $\div$  10 = 100ml/min  
8 min  $\Rightarrow$  800ml  
Claude  
8 min  $\Rightarrow$  200ml  
200  $\times$  5 = 1000ml  
8 min  $\times$  5 = 40 minutes
6. "Guess & revise" using a list or table  
8 goats  $\times$  £5 = £40  
16 sheep  $\times$  £3 = £48  
24 chooks  $\times$  50p = £12  
[Other solutions possible]

7. Circle has 360°  
Printing = 90°  $\Rightarrow$  25%  
Packaging = 20%  
Marketing = 44%  
Delivery  $\Rightarrow$  11%  
11% = £22  
1%  $\Rightarrow$  £2  
Product cost altogether  
100% = £200
8. Fill 3L bucket  $\times$  4 times  
and put into 10L bucket  
Keep 'unused' 2L  
Empty 10L bucket  
Pour 2L into 10L bucket  
Fill 3L bucket & add it to  
2L in 10L bucket  
10L bucket will contain 5L
9. 6 [Yr 4] + 18 [Yr 5] = 24  
Therefore  
24 = of divers  
1/3  $\Rightarrow$  12 [Yr. 6]  
Total divers = 24 + 12 = 36
10.
 

1	14	15	4
8	11	10	5
12	7	6	9
13	2	3	16
11. Lafayette feeds  
30 chooks in 5 days  
 $\Rightarrow$  1 day feeds 5  $\times$  30 = 150  
Increased flock  
150 chooks  $\div$  50 per day  
 $\Rightarrow$  3 days

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12. Christie 34  
Melvin 14  
Raoul 8  
Peggy 4  
⇒ 60 lollies originally
13. Norwich → Sheffield is approximately 125 miles  
Gas = 2 miles per litre [L]  
Petrol = 1.5 miles per L  
Nor. → Sheff. return on Gas  
250 miles ÷ 2m/L = 125 L  
125 L x 40p = £50  
Nor. → Sheff. return on Petrol  
250 miles ÷ 1.5m/L = 166.6 L  
166.66 L x 80p = £133.33  
Saving  
£133.33 - £50 = £88.33
- 14a. "Guess & revise" or Simultaneous equations  
We know that  
 $4x + y = £15$   
 $7x + y = £24$   
Therefore  
 $4x + y + £9 = 7x + y$   
⇒  $£9 = 3x$ , so  $x = £3$   
Answer  
£3 per tub
- b. Create a cost table / pattern  
[9 packs → £162]
- | <u>4 pack</u> | <u>7 pack</u> | <u>£ Total</u> |
|---------------|---------------|----------------|
| 1             | 8             | £207           |
| 2             | 7             | £198           |
| --            | --            | --             |
| 6             | 3             | £162           |
- Answer  
6 x 4 pk = 6 x £15 ⇒ £90  
3 x 7 pk = 3 x £24 ⇒ £72

15. 12  
19  
14 17 20 15 16  
13  
18  
[Other solutions possible]
16. First 26 minutes  
2 min = 7.5 L  
20 min = 75 L  
 $20 + 2 + 2 + 2 ⇒$   
26 min = 97.5L  
Assume for 1 minute  
5L in & 1.25L out = 3.75L  
 $2.5 ÷ 3.75 × 60 \text{ sec}$   
⇒ 40 seconds  
Answer  
26 minutes & 40 seconds
17. Starting with  
2 hexagonal end points  
6 paths each  
4 square points  
3 paths each  
Total possible paths  
 $(2×6) + (4×3) = 24$
18. 40 pages ⇒  
Sports = 4 pages  
Editorials = 12 pages  
News = 24 pages  
Sports  
25% of 4 = 1pg in ads  
Editorials  
33% of 12 = 4pg in ads  
News  
12.5% of 24 = 3pg in ad  
Total = 8 pages in ads  
8 out of 40 = 20%



19.

÷	14	70	42	28
	28	140	84	56
<u>7</u>	2	10	6	4
4	<u>3</u>	<u>22</u>	<u>10</u>	7
2	7	35	21	14

20.  $186 - 68 = 118$

$D = 8$

$E = 6$

$F = 1$

21.  $1/4 + 1/3 + 1/6 = 3/4$

$\Rightarrow 1/4$  left over = 60 girls

Total

4 'quarters' x 60

$\Rightarrow 240$  passengers

22.  $5m \times 4m = 20 m^2 @ \text{£}100$

$10m \times 8m = 80 m^2$

$\Rightarrow 4 \times \text{£}100 = \text{£}400$

23a.  $7 \times 3 + 2 = 23$

b.  $4 + (8 \times 5) = 44$

c.  $(20 \div 4) - 3 = 2$

d.  $16 \div (10 - 8) = 8$

24.  $1/2 - 1/5 = 5/10 - 2/10 =$

$3/10 \Rightarrow 3$  hours

$1/10 \Rightarrow 1$  hour

Flight is 10 hours

Departed 2pm

Arrives 12 midnight

25. 10 groups

swb, sw, sb, sbg, sg, swg

wbg, wb, wg, bg

26. "Guess & revise"

$16 \times 10p = \text{£}1.60$

$12 \times 20p = \text{£}2.40$

$12 \times 50p = \text{£}6.00$

27.  $525 \times 5 = 2625$

$X = 2$

$Y = 6$

$Z = 5$

28. Miles

$0 \rightarrow 9 = 45$

$10 \rightarrow 19 = 45 + 10$

$20 \rightarrow 29 = 45 + 20$

$\Rightarrow (45 \times 10) + (10 + 20 + \dots + 90)$

$= 450 + 450 = 900$

$900 + 1$  [for 100] = 901

29.  $86 \times 10^6$  people  $\div$  90 year

$\div$  365 days  $\div$  24 hours =

109 people each hour

30. Look for a pattern

1<sup>st</sup> line = 1cm

3<sup>rd</sup> line = 2 cm

5<sup>th</sup> line =  $(5+1) \div 2 = 3$ cm

Length  $\Rightarrow$  (Line no. + 1)  $\div$  2

99<sup>th</sup> =  $(99+1) \div 2 = 50$ cm

Lengths combined make

$1+50, 2+49 \dots$

$= 51$ cm

$\Rightarrow 50$  pairs  $\times 51$ cm =

2550cm (or 25.5m)

31.  $2^6 = 64$

$3^5 = 243$

$4^4 = 256$

$5^3 = 125$

$6^2 = 36$

$7^1 = 7$

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32. p.1 → 9 = 9 digits  
 p.10 → 19 = 20 digits  
 p.20 → 99 = 160 digits  
 p.100 → 109 = 30 digits  
 p.110 → 199 = 270 digits  
 p.200 → 299 = 300 digits  
 p.300 → 369 = 210 digits  
 ⇒ 999 digits in 369 pages
33. Split shapes into rectangles  
 Area  
 $1.7 \text{ km}^2 + 1.44 \text{ km}^2 \Rightarrow$   
 $3.14 \text{ km}^2 = 3,140,000 \text{ m}^2$   
 Cost  
 $3,140,000 \times .04 = \text{£}125,600$
34.  $1/2 - 1/3 = 7$  branches  
 $y (1/2 - 1/3) = 1/6$   
 $\Rightarrow y / 6 = 7$   
 $y = 6 \times 7 = 42$   
 $42 + 1$  [sitting] = 43 branches
35.  $c = 2\Pi r$   
 Earth's  $c = 8,000 \times \Pi =$   
 25,132 miles  
 Daily travel = 365 – 180 rest  
 = 185 days travelling  
 $25,132 \div 185 = 136$  miles/day
36. Arithmetic reasoning  
 $X = 5$  and  $Y = 125$   
 Simultaneous equation  
 $(X + 10)^2 = X^3 + 100$   
 $\Rightarrow X^2 + 20X + 100 = X^3 + 100$   
 $\Rightarrow X^2 - X = 20 \Rightarrow X = 5$
37.  $282 - 153 - 83 = V$   
 $V \Rightarrow 46$   
 $153 - 83 - 46 = U$   
 $U \Rightarrow 24$

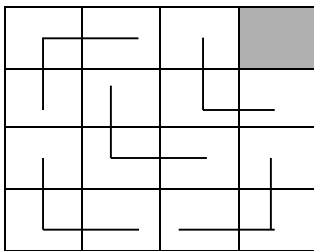
38. Speed ratio [up : return]  
 is 12 : 20 → 3 : 5  
Time ratio  
 $320 \text{ mins [total]} \div 8 =$   
 40 mins per 'part'  
 Up = 3 x 40 = 120 mins  
 Down = 5 x 40 = 200 mins
- 1knot = 1.156mph
- To Aberdeen  
 $20 \text{ knots} \times 1.156 \text{ mph} =$   
 23.12 mph  
 Time = 120 min = 2 hrs  
 $23.12 \text{ mph} \times 2 \text{ hrs} =$   
 46.24 miles
- Return to Arbroath  
 $12 \text{ knots} \times 1.156 \text{ mph} =$   
 13.872 mph  
 Time = 200 min = 3.33 hr  
 $13.872 \text{ mph} \times 3.33 \text{ hrs} =$   
 46.24 miles
- Total distance is 92.5 miles
39. Rotations per minute  
 Large = 1  
 Middle = 5  
 Small = 15  
 Total rotations in 5 min =  
 $5 \times (1+5+15) = 105$
40. Digits  $1+2+\dots+9 = 45$   
 $45 \div 9 = 5$  &  $45 \div 3 = 15$   
 ⇒ Divisibility rule for 9 & 3  
 Examples  
 $867,541,392 \div 9 =$   
 96,393,488  
 $293,145,786 \div 3 =$   
 97,715,262

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$$\begin{array}{r}
 41. \quad 3 \ 4 \ 2 \\
 - \quad 1 \ 7 \ 8 \\
 \hline
 \quad 1 \ 6 \ 4
 \end{array}$$

$$\begin{array}{r}
 \quad 6 \ 4 \ 8 \\
 \quad 2 \ 7 \ 9 \\
 - \quad 2 \ 2 \ 1 \\
 \hline
 \quad 1 \ 4 \ 8
 \end{array}$$

42.



43. Present  
72 Girls & 48 Boys  
Danced  
40G & 20B  
Other  
12G & 18B  
Watched  
20G & 10B

44. Ratio  
1 mile = 1.6 km  
1 mile<sup>2</sup> = 2.56 km<sup>2</sup>  
⇒ 905,328 x 2.56 =  
2,317,640 km<sup>2</sup>

45. 1knot = 1.85 km/h  
250 ⇒ 100 sail & 150 ride  
Douglas [20 knots = 37km/h]  
100 ÷ 37 km/h = 2 hr 42  
David  
150 ÷ 50 = 3 hours  
Ans ⇒ Douglas by 18 mins

46. Venn diagram groupings  
Apples & bananas = 10  
Apples = 11  
Apples, oranges and  
bananas = 12  
Oranges = 13  
Bananas = 14

47.  $1 \frac{1}{4} + 5 = 6 \frac{1}{4}$   
 $1 \frac{1}{4} \times 5 = 6 \frac{1}{4}$

48. Boys =  $\frac{3}{5}$  of 30 = 18  
18 x 75 = 1350 kg total  
Girls = 2070 - 1350 = 720kg  
720 ÷ 12 girls = 60kg each

49. Rule to find bottom number  
(top number)<sup>2</sup> + 4 = 5  
Work in reverse  
 $\sqrt{(85 - 4)} = 9$   
Follow rule  
 $5^2 + 4 = 29$   
Work in reverse  
 $\sqrt{(68 - 4)} = 8$

50. Jaya  
60L ÷ 60 min = 1L/min  
Steve  
60L ÷ 30 min = 2L/min  
Together work at 3L/min  
60L ÷ 3L/min ⇒ 20 mins

51. Top row = 1  
2<sup>nd</sup> top = 3 (2 each side)  
Continue pattern  
(pyramid numbers)  
1 + 3 + 6 + 10 + 15 +  
21 + 28 = 84  
⇒ 84 tins of peaches



- 52a. 11 students  
 b. Length totals per group  
 $2+12+42+72+80+24= 232$   
 $232 \times 50\text{m} \Rightarrow 11.6 \text{ km}$   
 c. Top third = 10 / 30 students  
 Lengths = 24 + 80  $\Rightarrow$  104  
 $104 \times 50\text{m} = 5.2\text{km}$   
 $(5.2 \div 11.6) \times 100 \Rightarrow 45\%$

53.  $210 \times 6 = 1260$   
 A = 2  
 B = 1  
 C = 0  
 D = 6

54. x1 squares            25  
 x4 squares            16  
 x9 squares            9  
 x16 squares           4  
 x25 squares           1  
 Total squares        55

- 55a.  $x / 4 = 117$   
 $\Rightarrow x = 468$  coins  
 $468 \div 3 = 156$  stamps  
 $\Rightarrow (468 + 156) \times 3 =$   
 1,872 matchboxes  
 Total = 2,496 items

- b.  $2496 \div 12 = 208$  minutes  
 = 3 hrs + 28 minutes  
 $\Rightarrow 2:28\text{pm}$

- 56a. Total expenditure = £400  
 Books = £40  $\Rightarrow 10\%$   
 b. Computer games  
 $\pounds 160 / \pounds 400 \Rightarrow 40\%$   
 c. Clothing  
 $\pounds 120 / \pounds 400 \Rightarrow 30\%$   
 $30\% \text{ of } 360^\circ = 108^\circ$

57. 15 moves  
 The easiest way to prove this is to use four coins.

58.  $27 \times 5 = 135$  runs in total  
 $135 - 17 - 35 - 24 = 59$

18 Possible combinations

0+59, 1+58, 2+57, 3+56,  
 4+55, 5+54, 6+53, 7+52,  
 8+51, and then in reverse

59. Find and continue patterns

Sequence 1

$1^{\text{st}} = 1 \times 2 \times 3 = 6$   
 $2^{\text{nd}} = 2 \times 3 \times 4 = 24$   
 [continue pattern]  
 $6^{\text{th}} \Rightarrow 6 \times 7 \times 8 = 336$   
 $7^{\text{th}} \Rightarrow 7 \times 8 \times 9 = 504$

Sequence 2

When x = consecutive odd Numbers, starting with 1  
 $(x - 2x)$  is the rule  
 $6^{\text{th}} \Rightarrow 11^2 - 22 = 99$   
 $7^{\text{th}} \Rightarrow 13^2 - 26 = 143$

60. Create a table, for example

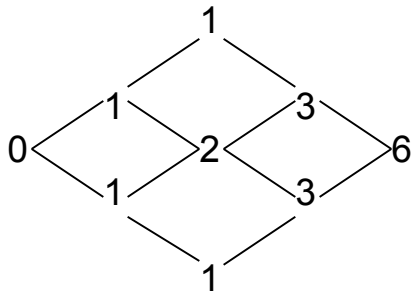
No.	Pos 1	Pos 2
1	1	
2	1 + 1	2
3	1 + 2	
4	x4 1's	x2 2's

Answer

5 coins are needed  
 1, 2, 4, 8, 16



61. Addition of pathways



Combined total = 6

62a. Football

$$360 - 70 - 60 - 110 = 120^\circ$$

$$120^\circ = 1/3 \Rightarrow 33.3\%$$

b. Tennis =  $60^\circ$  of  $360^\circ = 1/6$

$$1/6 \text{ of } 240 = 40 \text{ players}$$

63. Create a table

Page	Rule	Fits
34	$3 \times 4 = 12$	No
35	$3 \times 5 = 15$	Yes
36	$3 \times 6 = 18$	Yes

Answer

63 pages fit the rule

$$63 \text{ of } 150 = 42\% \Rightarrow 8\% \text{ off}$$

64.  $4/4 + 3/4 = \text{'7 parts'}$

$$8750 \text{ m}^2 \div 7 = 1250 \text{ m}^2$$

Paddock 1

$$\text{Area} = 4 \times 1250 = 5000 \text{ m}^2$$

$$50 \text{ m} \times 100 \text{ m}$$

Paddock 2

$$\text{Area} = 3 \times 1250 = 3750 \text{ m}^2$$

$$50 \text{ m} \times 75 \text{ m}$$

65. 93.5 million miles [average]  $\div$

$$62,000 \text{ miles} =$$

$$1508 \text{ 'humans'}$$

66. "Guess & revise"

a.  $27 \times 28 \times 29 = 21,924$   
[can use  $3\sqrt{\quad}$  to help]

b.  $11 \times 12 \times 13 \times 14 = 24,024$   
[can use  $4\sqrt{\quad}$  to help]

67. Find '1 second' distance

Darrin

$$18 \text{ mph} \times 1.6 = 28.8 \text{ km/h}$$

$$28.8 \div 60 \div 60 = 8 \text{ m per sec}$$

Brian

$$18 \div 60 \div 60 = 5 \text{ m per sec}$$

Time/distance comparisons

1 second

D 8m      B 5m

10 seconds

D 80m      B 50m

100 seconds

D 800m      B 500m

Answer

133.3 seconds

D 1066.6 m      B 666.6 m

Both at 'same' place on track

$$\Rightarrow 2 \text{ min} \ \& \ 13.3 \ \text{sec}$$

68. Total

$$\pounds 37 \times 5 = \pounds 185$$

Connor       $\pounds 45$

Sean       $\pounds 50$

Blythe       $\pounds 30$

Sabrina       $\pounds 35$

Freya       $\pounds 25$

69. x1 triangles      32

x4 triangles      18

x9 triangles      8

x16 triangles      2

Total triangles      60



70. Make a table testing speeds  
[min → miles] Total 27 min

<u>Bike</u>	<u>Bus</u>	<u>Miles</u>
6 → 1	21 → 10.5	11.5
12 → 2	15 → 7.5	9.5
15 → 2.5	12 → 6	8.5

Answer

Bike for 15mins = 2 \_ miles  
Bus for 12mins = 6 miles

71. Create a table

	A	B	C	D	E	F	G
G1	22	24	26	28	30	32	34
G2	11	12	13	14	15	16	17
G3	36	36	36	36	36	36	36
G4	34	32	30	28	26	24	22
G5	17	16	15	14	13	12	11

There are 7 different solutions  
to this challenge.

72.

(9	+	5)	x	2	=	28
+		x		x		
4	x	6	÷	3	=	8
+		+		-		
7	x	8	+	1	=	57
=		=		=		
20		38		5		

73. “Guess & revise”  
Make a costs table

Answer

Glass bottles

$$12\text{¢} \times 190 = \text{€}22.80$$

Plastic bottles

$$7\text{¢} \times 60 = \text{€}4.20$$

74. Work in reverse

Cat 10% of 1L = 100ml

Jackson

$$100\text{ml} + 50\text{ml} = 150\text{ml}$$

Marg 100ml + 50ml = 150ml

$$\Rightarrow 1\text{L} - 400\text{ml} = 600\text{ml left}$$

Will 350ml

Amy 250ml

$$75. \text{X} = 2^5 \div 2 = 16$$

$$\text{X}^\wedge = 3^4 \div 9 = 9$$

$$\text{X}^\text{B} = 5^3 \div 50 = 2 \text{ } 1/2$$

76. 200g with 100g pure

Add 200g pure gold

$$\Rightarrow 400\text{g with } 300\text{g pure}$$

which is 18 carats

77. Height of Eiffel Tower

986 feet

Drop	Fall	Bounce	+ Total
1 <sup>st</sup>	986	591.6	1577.6
2 <sup>nd</sup>	591.6	354.96	2524.16
3 <sup>rd</sup>	354.96	212.98	3092.1
4 <sup>th</sup>	212.98	127.79	3432.87
5 <sup>th</sup>	127.79	76.67	3637.33
6 <sup>th</sup>	76.67	46.00	3760
7 <sup>th</sup>	46.00	27.6	3833.6
8 <sup>th</sup>	27.6	16.56	3877.76
9 <sup>th</sup>	16.56	9.94	3904.26
10 <sup>th</sup>	9.94	5.96	3920.16

**UK Answers**

**Green**



**Challenge Cards**

78.  $150\text{kg} \times 0.02 = 3\text{kg}$  'pure'  
 $3\text{kg} \times 0.1 = 300\text{g}$  'gem'  
 $5\text{g} \rightarrow \$15,000$   
 [multiply by a factor of 3,000]

Answer

$60\text{g} \rightarrow \$900,000$

79. "Guess & revise"  
 Wheels  
 \_ of £100  $\rightarrow$  £75  
 Gears  
 10% of £300  $\rightarrow$  £270  
 Frame  
 20% of £600  $\rightarrow$  £480

80. Yoshi fills 5L per minute  
 Ichi fills 4L per minute  
 Mitsuko fills  $2\frac{1}{2}$  L per min  
 Combined =  $11\frac{1}{2}$  L/min  
  
 $100\text{L} \div 11\frac{1}{2} = 8.7$  minutes

Answer

8 minutes & 42 seconds

E81. Process of elimination  
 Crystal 51 & Judy 68

E82. Establish a distance table,  
 siphoning fuel from F1  $\rightarrow$  11

F.	Fraction of 500km	Total km's
1	$1/12 = 41.67$	41.67
2	$1/11 = 45.45$	87.12
3	$1/10 = 50$	137.12
4	$1/9 = 55.56$	192.68
5	$1/8 = 62.5$	255.18
6	$1/7 = 71.43$	326.61
7	$1/6 = 83.33$	409.94
8	$1/5 = 100$	509.94
9	$1/4 = 125$	634.94
10	$1/3 = 166.67$	801.61
11	$\_ = 250$	1051.61
12	$1/1 = 500$	1551.61

Answer 1,551,61km max

E83.  $\otimes = 1$                     2178  
 $\circ = 2$                     x   4  
 $\odot = 7$                     8712  
 $\odot = 8$

E84. Set-up a 'points' table

<u>3pts</u>	<u>5pts</u>	<u>7pts</u>	<u>Total</u>
0	11	0	55
1	9	1	55
2	7	2	55
3	5	3	55
4	3	4	55
5	1	5	55

Answer 6 rounds



E85. Addition of pathways

```

      1
    1  4
  1  3 10
0  2  6 20
  1  3 10
    1  4
      1
    
```

Combined total is 20

E86. Set-up a table

Day	Extra milligrams
1	$200 \times 0.4 = 80 \text{ mg}$
2	$(200+80) \times 0.4 = 112$
3	$(200+112) \times 0.4 = 124.8$
4	$324.8 \times 0.4 = 129.92$
5	$329.92 \times 0.4 = 131.97$
6	$331.97 \times 0.4 = 132.79$
7	$332.79 \times 0.4 = 133.11$
8	$333.11 \times 0.4 = 133.25$
9	$333.25 \times 0.4 = 133.30$
10	$333.30 \times 0.4 = 133.32$

Answer 133.32mg heavier

E87.  $\text{£}1000 \div \text{£}2 = 500\text{km}$

Park's radius = 1km

$C = 2\pi r = 6.28\text{km}$

$500 \div 6.28 = 79.62 \text{ laps}$

Day	Laps	Total laps
1	20	20
2	19	39
3	17	56
4	14	70
5	10	80
		<u>Answer</u>

E88. Set-up a table

Hour	Drink	Total
9am	$100 - 100 \div 4$	75ml
10	$75 - 75 \div 4$	56.25
11	14.06	42.19
12	10.55	31.64
1pm	7.91	23.73
2	5.93	17.80
3	4.45	13.35
4	3.34	10.01
5pm	2.5	7.51

Answer Closest hour is 5pm

E89. Uses the formulae

Circumference =  $2\pi r$

Area =  $\pi r^2$

Volume of cylinder =  $\pi r^2 \times h$

Inside ring

$C = 2\pi r = 50\text{mm}$

Therefore radius is

$50 \div 2\pi = 7.95\text{mm}$

Area =  $\pi r^2 \Rightarrow 198.86\text{mm}^2$

$V = A \times 5\text{ml} = 994.32\text{mm}^3$

Outside ring

$R = 7.95 + 1 = 8.95\text{mm}$

$A = \pi r^2 \Rightarrow 251.75 \text{ mm}^2$

$V = A \times h = 1258.75 \text{ mm}^3$

Difference =  $V1 - V2$

$\Rightarrow 264.43 \text{ mm}^3$



E90. 1kg = 2.2 lb  
1in = 2.54cm  
10cm x10cm x 10cm of  
water weighs 1kg

Ball radius  
Diameter = 8.6 inches  
Therefore  
 $(8.6 \div 2) \times 2.54 = 10.92\text{cm}$

Ball volume [sphere]  
 $\frac{4}{3} \times \pi r^3 = \frac{4}{3} \times 4092.54$   
 $\Rightarrow 5456.72\text{cm}^3$

$1000\text{cm}^3 = 1\text{kg}$   
Covert to pounds  
 $(5456.72 \div 1000) \times 2.2$   
 $\Rightarrow 12.00$  pounds

Answer 12 pound bowling  
ball

### Challenges 91 → 100

These are open-ended questions,  
with no set solutions. Please refer to  
introductory sheet 3 for a thorough  
explanation.