Section A

search

Q.	Answer
1.	(a) 12 (b) 90
2.	30
3.	2/3
4.	4.123 , 4.132 , 4.3 , 4.32 , 4.321
5.	8 /12 = 12/18 = 18/27
6.	23
7.	42
8.	13 , 14
9.	27
10.	28
11.	57
12.	12 bags

13.	30 (p)
14.	24p , 57p , £1.26
15.	(£) 54
16.	(a) Bristol (b) 3

Section B

search

Q.	Answer
1.	24 (coins)
2.	2 , 5 , 3 and 10 gifts
3.	(a) 533 (gammas) (b) 7 (alphas) 17 (betas) 4 (gammas)
4.	£0.85
5.	7
6.	22 chocolate biscuits
7.	80 cm
8.	10 cm
9.	89
10.	(a) 1.14 km (b) 8 minutes 33 seconds

Section C

search

Q.	Answer
1.	(a) (i) $1 + 3 + 5 + 7 = 16 = 4^2$ $1 + 3 + 5 + 7 + 9 = 25 = 5^2$ $1 + 3 + 5 + 7 + 9 + 11 = 36 = 6^2$ (ii) $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19 + 21 + 23 + 25 = 169 = 4^2$(b) (i) $13 + 15 + 17 + 19 = 64 = 4^3$ $21 + 23 + 25 + 27\ 29 = 125 = 5^3$ $31 + 33 + 35 + 37 + 39 + 41 = 216 = 6^3$ (ii) 10 (c) A = 10 , B = 6 , C = 4
2.	(a) 48 (b) 21/2 (c) 3/8 (d) 7 (e) 6 (f) $x \phi y = (x + y) \times y = xy^2 + y$ $y \phi x = (y + x) \times x = xy + x^2$Since $x \neq y$ and both x and y are positive, therefore $x^2 \neq y^2$ As such, $xy + y^2 \neq xy + x^2$ which proves that $x \phi y \neq y \phi x$

3.	(a) Route AB – BC – CE 10 (miles)(b) HF – FG – GE – EC 14 miles (c) AB – BC – CE – EG – GF – FH 21 (miles)
4.	4 x 296 2 x 592 1 x 1184(a) Reduce the first number by 2 and multiple the second number by 2 (b) 9 x 111 3 x 333 1 x 999 (c) 1 x 972 2 x 486 4 x 243 12 x 81 36 x 27
5.	(a) (i) 7 (ii) 3 (iii) 8 (iv) 8 (v) 3(b) n = 4 , m = 2 (c) p = 8 , q = 2