1. L.C.M

1.	a) G.C.D of $81xy^4$ and $144x^3y^2$ is $9xy^2$ $144x^3y^2 - 81xy^4$ $9xy^2(16x^2 - 9y^2)$ $9xy^2(4x - 3y)(4x + 3y)$	M1 M1 A1	
		3	
2.	Let the other number be x $LCM = \frac{Product\ of\ the\ two\ numbers}{GCD\ of the\ numbers}$ $140 = \frac{20 \times x}{7}$ $x = \frac{140 \times 7}{20}$ $= 49$	M1 A1	
		02	
3.	LCM = 7920 = 24x32x5x11 GCD = 12 = 22x3 48 = 24x3 264 = 23x3x11 X = 22x32x5 X = 180	M1 M1 A1	Factor notation GCD and LCM Factor notation 2numbers C.A.O
		03	
4.	$9 = 3 \times 3$ $15 = 3 \times 5$ $20 = 2 \times 2 \times 5$ $24 = 2 \times 2 \times 2 \times 3$ $L.CM = 3^2 \times 2^3 \times 5$ $= 9 \times 8 \times 5$ $= 9 \times 8 \times 5$ $= 360 sweets$	M1 M1 A1	Correct factors Accept other alternative correct method for getting the L.C.M
		03	
5.	L.C.M = 2 | 27 30 45 3 | 27 15 45 3 | 9 5 15 3 | 3 5 5 5 | 1 5 5 | 1 1 1 2x33x5 = 270 = 270 + 3 = 273.	M1 A1	✓LCM
		02	

6.

2	20,	24,	26,	28
2	10	12	13	14
2	5	6	13	7
3	2	3	13	7
5	5	1	13	7
7	1	1	13	7
13	1	1	13	1
1	1	1	1	

Size of the land = (2^3 x 3 x 5 x 7 x 13) + 7) aces

= 10920 + 7 = 10,927 aces

7.

2	30	45	54
3	15	45	27
3	5	15	9
3	5	5	3
5	5	5	1
	1	1	1

Least volume of x = 2 X 33 x 5 + 21

= 270 + 21 = 291

8. *L.C.M. of 30, 36 and 45*

2	30	36	45	
2	15	18	45	
3	15	9	45	
3	5	3	15	
5	5	1	5	
	1		1	

L.C.M. = 2^2 x 3^2 x 5 = 180

The number m = 180 + 7 = 187

9. $x^2 + x = x (x + 1)$

$x^2 -1 = (x + 1) (x – 1)$

$x^2 – x = x(x – 1)$

$x(x+1) (x – 1)$

$x^3 - x$