HOME ASSIGN...

Q1) (i) 1 (v) 1
(ii) 2 (vi) 3
(iii) 9 (vii) 8
(iv) 5 (viii) 7

Q2 a) $6^3 = n = 6, (n-1) = 5$
$= (6 \times 5) + 1 = 31 \ldots$
$6^3 = 31 + 33 + 35 + 37 + 39 + 41 = 216$

b) $8^3 = n = 8, (n-1) = 7$
$= (8 \times 7) + 1 = 57 \ldots$
$8^3 = 57 + 59 + 61 + 63 + 65 + 67 + 69 + 71 = 512$

c) $7^3 = n = 7, (n-1) = 6$
$= (7 \times 6) + 1 = 43 \ldots$
$7^3 = 43 + 45 + 47 + 49 + 51 + 53 + 55 = 343$

Q3) $(20)^3 = 20 \times 20 \times 20 = 8000$
$(25)^3 = 25 \times 25 \times 25 = 95625$
$(19)^3 = 19 \times 19 \times 19 = 6859$
$(15)^3 = 15 \times 15 \times 15 = 3375$

Q4) Prime factorising 392,
$= 2 \times 2 \times 2 \times 7 \times 7$
$= 2^3 \times 7^2$
∴ 392 is not a perfect cube

Q5) $53240 = 5 \times 2^3 \times 11^3$
∴ not a perfect cube, so ...