

**6 Year 7 Term 1 Week 6 Answers** (last modified: January 13, 2012)

E 6.1.1 (1) 30 ; (2) 108 ; (3) 96 ; (4) 63 ; (5) 165 ; (6) 144 ;

E 6.1.2 (1) 10th ; (2) 8th ; (3) 9th ; (4) 14th ; (5) 26th ; (6) 15th ;

E 6.1.3 (1) 21, 24, 27, 30, 33, 36, 39 ;

(2) 15, 20, 25, 30 ;

(3) 32, 40, 48 ;

(4) 36, 48, 60, 72 ;

(5) 49, 56, 63, 70 ;

(6) 18, 27, 36, 45, 54, 63;

E 6.1.4 (1) 1, 2, 3, 4, 6, 9, 12, 18, 36 ;

(2) 1, 2, 3, 4, 6, 8, 12, 16, 24, 48 ;

(3) 1, 2, 3, 6, 11, 22, 33, 66 ;

(4) 1, 3, 5, 15, 25, 75 ;

(5) 1, 2, 3, 6, 7, 14, 21, 42;

E 6.1.5 (1) 1, 2, 3, 4, 5, 8, 9, 16, 25 ; (2) odd, the middle number always be the root;

E 6.1.6 (1) [5 and 3] ; the factors of 15 ; (2) [ 2, 3, 4, 6, 8, 12 and 24], the actors of 24 ;

E 6.1.7 (1) 4 ; (2) 3 ;

E 6.1.8 (1) P ; (2) P ; (3) C ; (4) C ; (5) P ; (6) C ; (7) P ; (8) P ;

E 6.1.9 (1) [3, 13]; [13, 23]; [19, 29]; [7; 17]; [31, 41];

(2) No ; (3) 1 ; because one has one factor only ; (4) [5+7+11+13] [3+5+11+17];

(5) [3 + 97] ; [89 + 11] ; [83 + 17] ; [71 + 29] ; [41 + 59] ; [47 + 53] ;

E 6.1.10 (1)  $2^2 \times 7$  ; (2)  $2 \times 3^3$  ; (3)  $2^3 \times 3^2$  ; (4)  $2^2 \times 5^2$  ; (5)  $2^2 \times 3^3 \times 5$  ; (6)  $2^8 \times 5$  ;

E 6.1.11 (1) 6 ; (2) 108 ; (3) 18 ;

E 6.1.12 (1) 108 ; (2) 1836 ; (3) 3304 ;

E 6.1.13 (1) 17 ; (2) 38 ; (3) 103 [ $103 \div 7 = 14r5$ ] ; (4) 6870 ; (5) 20 [t=20 F = 10] ;

**6.1 Diagnostic Test 6 Answers**

(1) 1 ; (2) [1, 2, 3, 4, 6] all the factors of 12 ; (3) 12 ; (4) 216 ; (5) 4 ; (6) 6 ; (7) 27 ; (8) 2 ; (9) 2 ;

(10) 9 ; (11) 97 ; (12) 240 ; (13) 24, 48, 72, 96 ; (14) 9 ;