

## #2 sequence review

- 1) a) iv.  
b) ii.  
c) i.  
d) iii

- 2) i. arithmetic; common ~~ratio~~<sup>difference</sup> is 6; 20, 26, 32, 38  
ii. arithmetic; common difference is -3; 47, 44, 41, 38  
iii. geometric; common ratio is 1.5; 32, 48, 72, 108  
iv. arithmetic; common difference 4.3; -18, -13.7, -9.4, -5.1

3)  $5 \rightarrow \underline{26.2}$  \*subtract 3.45 each time\*  
 $9 \rightarrow 12.4$

4)  $u_1 = 6$   
 $u_n = u_{n-1} + 3.2 \quad n \geq 2$   
 ~~$u_n = 3.2n$~~   $u_{10} = 34.8$

- 5) a) 58  $\rightarrow$  add 4 each time so  $u_1 = 2, u_n = u_{n-1} + 4 \quad n \geq 2$   
b) 0.0000000004  $\rightarrow$  multiply by 0.1 so  $u_1 = 0.4 \quad u_n = 0.1 \cdot u_{n-1} \quad n \geq 2$   
c) ~~188~~  $\rightarrow$  subtract 6. so  ~~$u_n = 188 - 6n$~~   $u_1 = -2 \quad u_n = u_{n-1} - 6 \quad n \geq 2 \quad (-176)$   
d) 35.75  $\rightarrow$  add 2.21 so  $u_1 = -6.24 \quad u_n = u_{n-1} + 2.21 \quad n \geq 2$