

## Worksheet 8: Counting up to symmetry – answers

1. (a)  $26^2 = 676$ .  
(b)  $\frac{26^2}{2} = 338$ .
2. (a)  $2^5 = 32$ ;  
(b)  $3^5 = 243$ ;  
(c)  $7^5 = 16807$ .
3. (a) 3;  
(b) 6;  
(c) 28.
4. (a) 13;  
(b) 92;  
(c) 10528.
5. (a) 6.  $b^4 + b^3g + 2b^2g^2 + bg^3 + g^4$ .  
(b) 140.  $b^9 + 3b^8g + 10b^7g^2 + 22b^6g^3 + 34b^5g^4 + 34b^4g^5 + 22b^3g^6 + 10b^2g^7 + 3bg^8 + g^9$ .  
(c) 36.  $b^6 + 3b^5g + 9b^4g^2 + 10b^3g^3 + 9b^2g^4 + 3bg^5 + g^6$ .