

St Paul's Girls School 2024 sample B

Section A

- 1) A
 - 2) B
 - 3) B
 - 4) A
 - 5) D
 - 6) B
 - 7) C
 - 8) B
 - 9) B
 - 10) B
- 1) a) 1h47m
b) 4:13pm, 5:05pm, 5:52pm
 - 2) a) 3:32
b) 8h15m
 - 3) 8x7 and 63-7
 - 4) P (upside down though)
 - 5) 125
 - 6) a) 9
b) 4
 - 7) 10cm^2
 - 8) 18
 - 9) ports, stops, sport, spots, posts, strop
 - 10) a) 5
b) 35

Paper 2

- 1) a) $1+1+1+1, 1+1+2, 1+2+1, 2+1+1, 2+2 = 5$ ways
b) $1+1+1+1+1, 1+1+1+2, 1+1+2+1, 1+2+1+1, 2+1+1+1, 1+2+2, 2+1+2, 2+2+1 = 8$ ways
c) 7 can start with 1+1 (after which we need 5 (8 ways)) or 2 (after which we need 5 (8 ways)) or 1+2 (after which we need 4 (5 ways)) = total of 21 ways.
- 2) a) B is the same as the angle to the left of A. C is the same as the angle to the right of A.
Those angles are on a straight line so add to 180. So $A+B+C = 180$, hence result.
b) We have 5 points, each equal to 360 = 1800 total. Now subtract the two triangles = $180 \times 2 = 360$. So 1440.
- 3) a) 10m/s
b) 45mph
c) multiply by 4 and divide by 9 or divide by 9 and multiply by 4.
d) 80m/s
- 4) a) 37
b) 348
- 5) a) 10395
b) 0

- c) 1
- d) 0
- e) 479001600
- f) 3