**S5/6 REVISION ANSWERS**

**Calculator**

1a. 120 b. 4 c. 250 2a. 133 b. 4.78 c. 56.5

Percentages

1. 500 members 2. 150 pupils 3. £200,000. 4. £12,000.

Appreciation/Depreciation

5. £92,317.44 6. £212.24 7. £6,300,000,000. 8. £1536 9. £564,480.

Circle

1a. 50cm b. 14.3cm 2a. 100cm b. 171.4cm or 1.71m 3. 102cm

4. 54° 5. 28° 6a. 112° b. 60.6cm

Arcs and Sectors

1. 54.5cm2 2. 6.8m 3. 7775.4cm2 4. 11.2m2 5. 33.1cm2

6. 40° 7. 173.2cm2

Standard Deviation

1. Glasgow – mean 4.3 degrees – standard deviation 1.49

London – mean 6.3 degrees – standard deviation 2.83

The weather in Glasgow is colder on average than London but the weather is also more consistent in Glasgow because the standard deviation is less than London.

Non Calculator

Straight Line

1. m=3/2, c=2 2. y=-3/4+6 4. m=3/4, c=-3 5. y=-3/2+2

6. m=-3, c=9/2 7. Diagram 8a. m=1/4 b. T=1/4v+10 9. m=2/3, c=2

10. 3y=2x-12 or y=2/3x-4 11a. m=3/4, c=3/2 b. y = -1/2x + 3/2

Algebra

1a. 11a-3 b. 7x+6 c. 8b+7

2a. x2+5x+6 b. s2-11s+28 c. p2-8p-20

d. 25y2+20y+4 e. 2x3+4x2+6x f. x3+14x2+39x-54

3a. 3(x-1)(x+1) b. 2(p+1)(p+5) c. 9(x-2)(x+4) d. 5(x2+5x+6) e. a(x2+5x+6)

f. 3(y-5)(y+1) g. 3(5c+4)(c+1) h. 2(4b+1)(2b+3) i. 3(3q+2)(q+3) j. 5(2s-1)(s-3)

k. 4(2m-3)(m-1) l. 4(2a-3)(a-3) m. 2(2t-7)(t+4) n. 10(3d+6)(3d-4) n. 4(10x+1)(10x-1)

Completing the square



Inequalities

a) $x>6, or 6<x$ b) $c\leq -5, -5\geq c$ c) $t\geq \frac{25}{3},\frac{25}{3}\leq t$

Fractions

a) $\frac{107}{20} or 5\frac{7}{20}$ b) $\frac{5}{8}$ c) $\frac{5}{12} $

Change the subject $.$

