Maths Key Skills

Name: .... Date: ....

Class/Group: ....

A: Number & Algebra		B: Proportion, Geometry & Measure		C: Geometry & Measures, Statistics & Probability	
1. Write **34 x 10⁵** in standard form	9:1 **3.4 x 10⁶**	11. Work out the **interest** on £700 over 5 years at 8% simple interest	9:13 **£280**	21. **Of 50 people** 31 liked football, 20 liked tennis, 3 liked both. Complete the Venn diagram	9:27
2. Write **44 x 10⁻³** in standard form	9:1 **4.4 x 10⁻²**	12. After VAT of 20% was added, the bill was £540. What was the bill before VAT	9:14 **£450**	Football 28, 3, Tennis 17; 2	
3. **23** has been rounded to 2sf. Express the limits in the form a ≤ x < b	9:2 **22.5≤x<23.5**	13. Density = 140kg/m³ Mass 420kg What is the Volume?	9:15 **3m³**		
4. Factorise: y² − 2y − 35	9:4 **(y-7)(y+5)**	14. 5 men took 14 days to do a project. How many men would be able to do it in 10 days?	9:16 **7**	22. A coloured bead is chosen from each bag. Complete: Bag A, Bag B. ⅜ Green, ⅝ Yellow; ⅔ Green, ⅓ Yellow → GG, GY, YG, YY	9:28
5. If **0 < 3 x ≤ 9**, show the solution for **x** on the number line. -1 0 1 2 3 4 5 6 7 8 9	9:5	15. The two shapes are similar. Find x. x, 5cm; 24cm, 16cm	9:17 **Sf=16÷5 =3.2 x=24÷3.2 =7.5cm**		
6. Make 'y' the subject of the equation 5x + 2y = 10	9:6 **y = 5-2.5x**	16. Work out the PERIMETER of the semi-circle with a diameter of 14cm(2sf)	9:18 Пx14÷2+14 **36cm**	23. From the Tree diagram work out the probability that two the same were chosen $\frac{6}{24} + \frac{5}{24}$	9:28 $\frac{11}{24}$
7. Solve the equation: $\frac{y-1}{3} + \frac{2y+1}{4} = 2$	9:7 10y=25 **y = 2.5**	17. Work out the **curved** surface area of a cylinder with d=3m & h= 5m (3sf)	9:20 2xπx1.5x5 **=47.1m²**	24. Construct the perpendicular bisector of AC. A; C; B	9:25
8. **Is** y = 3x + 2 parallel to y − 5 = 3x?	9:8 **YES**	18. These triangles may not be congruent- Why?	9:21 **Lengths could be different**		
9. Work out the gradient of the line – give units. **Babysitting charges** Cost (C) in £ vs Time (T) in hours	9:9 **£5/hour**	19. x, 2cm, 7cm. Work out length 'x' (to 1dp)	9:22 **√(7²+2²) =7.3cm**	25. A dice is rolled 30 times. The results are:	9:29
				Score / Frequency: 1/3, 2/5, 3/11, 4/2, 5/4, 6/5. Does this mean the dice is biased? Give a reason. **YES or NO** – circle your choice	
10. Evaluate **10 − y³** when **y = -2**	9:12 **10+8=18**	20. If cos x = $\frac{2}{7}$, work out angle x (2sf)	9:23 **73⁰**	**Reason** Insufficient trials; an increased sample size(trials) gives more accurate the prediction.	
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)		Y (10-19) G (20-25)	