Maths Key Skills **Stage 8: Skill Check 12 - Answers**

Name: ..... Date: ..... Class/Group: .....

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Statistics & Probability	
1. If 32 x 2.8 = 89.6 What is 896 ÷ 32?	*8:1* **28**	11. Expand & simplify: **(2x + 1)(3x – 7)**	*8:16* **$6x^2$-11x-7**	21. Carol went to the library to choose a book about cookery or sewing or knitting P(a sewing book) = 0.09 P(knitting) = 0.27 Work out the probability of choosing a cookery book	*8:26* **1-0.36 =0.64**
2. Write 45 as the product of its prime factors.	*8:2* **3^2 x 5**	12. The ratio of red : blue tiles is 5:4. 4/9 of the tiles are blue. Circle **TRUE** or **FALSE**	*8:17*		
3. Estimate by rounding to 1sf an answer to: 43.9 ÷ 0.18	*8:3* 40 ÷ 0.2 =400÷2 **=200**	13. In a pet shop the ratio of rabbits to guinea pigs is 3 : 2. There were 10 guinea pigs. How many rabbits?	*8:18* **15**	22. Of 84cats & dogs in a sanctuary, 50 are dogs. 18 of the cats are female. What is the probability of choosing a male cat?	*8:27* **16/84**
4. Evaluate: 3^5	*8:4* **243**	14. Some running shoes priced £62 have a 5% discount. Complete the multiplier to give the selling price?	*8:19* **62x0.95**		
5. Factorise: 4ab – 10b	*8:6* **2b(2a-5)**	15. Convert 50m/sec to km/h?	*8:20* **180km/h**	23. A spinner has equally like numbers 1,2 & 3 on. The spinner is spun twice. What is the probability of scoring two numbers the same?	*8:28* $\frac{3}{9}$ or $\frac{1}{3}$
6. Simplify: $4a^3 \div 2a^2$	*8:7* **2a**	16. What is the sum of the interior angles of a heptagon?	*8:21* **5x180 =900^0**		
7. Make 'p' the subject of the formula M = 3n + p	*8:8* **p=M-3n**	17. Work out the area of a circle with **diameter** 26cm in terms of π.	*8:21* **169π cm^2**	24. Give the modal class interval score Score: 1-5 (1), 6-10 (6), 11-15 (7), 16-20 (11)	*8:29* **16-20**
8. Solve x - 5 = 3(x -4)	*8:10* **x-5=3x-12 -5=2x-12 2x=7 x=3.5**	18. Work out the volume of this prism. 2m, 5m, 3m, 6m, 8m	*8:22* **6x3+2x2 =$22m^2$ 22x8 =$176m^3$**		
9. Write down the equation of a straight line graph with a gradient of -1 and cuts the y-axis at +2	*8:12* **y=-x+2 or y=2-x**	19. Enlarge rectangle by sf ½ centre X	*8:23*	25. . What correlation does this data suggest? Scatter graph of test results & days absent Test scores Days missed	*8:30* **negative**
10. Give the first 3 terms of the sequence with the nth term = 2n + 1	*8:15* **3, 5, 7**	20. Describe the bearing of A from B B, 85^0, A	*8:25* **095^0**		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	