

# Maths Key Skills

# Stage 9: Skill Check 8 - Answers

Name: .....

Date: .....

Class/Group: .....

A: Number & Algebra		B: Proportion, Geometry & Measure		C: Statistics & Probability	
1. Write $6.4 \times 10^4$ as an ordinary number	9:1 <b>64 000</b>	11. Work out the <b>balance</b> on £20 over 10 years at 5% compound interest	9:13 <b>£32.58</b>	21. Work out the $p(B \text{ or } C)$	9:27 $\frac{13}{20}$
2. Write $1.45 \times 10^{-1}$ as an ordinary number	9:1 <b>0.145</b>	12. A top cost £12.75 in a 25% off sale. Find its original value.	9:14 <b>£17</b>		
3. 24 has been rounded to nearest whole. Express the limits in the form $a \leq x < b$	9:2 $23.5 \leq x < 24.5$	13. Mass=56g Volume = $7\text{cm}^3$ . What is the Density?	9:15 <b><math>56 \div 7 = 8\text{g/cm}^3</math></b>		
4. Solve: $x^2 - x - 56 = 0$	9:4 <b><math>x = 8 \text{ or } -7</math></b>	14. Complete table for INDIRECT proportion	9:16		
5. If $3x + 2 > 14$ , show the solution for $x$ on the number line	9:5	15. The two shapes are similar. Find $x$	9:17 $Sf = 7.5 \div 2.5 = 3$ $X = 11 \div 3 = 3\frac{2}{3}$	22. Two coins are tossed. Complete the tree diagram	9:28
6. Make 'y' the subject of the equation $2x + 3y = 6$	9:6 <b><math>y = \frac{6-2x}{3}</math></b>	16. Work out the perimeter of the semi-circle (to 3sf)	9:18 $\pi \times 3 \div 2 + 3 = 7.71\text{cm}$	23. Use the tree diagram to work out the probability of TWO the same	9:28 $\frac{1}{2} \times \frac{1}{2} + \frac{1}{2} \times \frac{1}{2} = \frac{1}{2}$
7. Solve the equation: $\frac{y}{2} - \frac{y}{3} = 2$	9:7 <b><math>y = 12</math></b>	17. Work out the curved surface area of this cylinder (2sf)	9:20 $2\pi \times 1.5 \times 7 = 66\text{cm}$	24. Construct the perpendicular bisector of the line.	9:2
8. Write down the equation of a line parallel to $3x + y = 5$	9:8 <b><math>y = -3x + c</math> <math>y + 3x = c</math></b>	18. Give the condition of congruency	9:21 <b>AAS</b>		
9. Write the equation for $d$ in terms of $t$	9:9 <b><math>d = \frac{3}{4}t</math></b>	19. Work out length 'x' (to 1dp)	9:22 $\sqrt{4^2 + 4^2} = 5.7\text{cm}$	25. A new leisure centre for the town is being planned. A survey of every 10 <sup>th</sup> person coming out of the old leisure centre is done to find out people's thoughts of the plans. Comment on this method of obtaining information.	9:29
				<p>Results would be biased as people coming out of a leisure centre already use one.</p>	
10. Evaluate $x^2 - 7x$ when $x = -5$	9:12 <b><math>25 + 35 = 60</math></b>	20. Complete the sentence $\sin x = \frac{7}{10}$	9:23		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)		Y (10-19)	
				G (20-25)	