

Maths Key Skills

Stage 10: Skill Check 13 Answers

Name:

Date:

Class/Group:

A: Number & Algebra		B: Algebra, Proportion, Geometry & Measure		C: Geometry & Measure, Statistics & Probability	
1. Write the answer in standard form $(6.1 \times 10^6) \times (2 \times 10^{-5})$	10:1 1.22×10^2	11. Interpret the line DE 	10:13 Constant deceleration of 2m/s^2	21. A cylinder of height 8cm holds 200ml. A similar cylinder has a height of 10cm. How many ml does this one hold?(3sf)	10:26 391ml
2. Estimate to 1dp the value of: 3.15^5	10:2 $\approx 3^5$ =243	12. What inequality is represented here? 	10:14 $y \leq 2x - 1$	22. Mark another angle equal to 58° . Give the reason 	10:19 Angle between tangent & chord = angle in alternate segment
3. Evaluate: $64^{-2/3}$	10:3 $=1/16$	13. Find the nth term of this sequence: 0, 1, 4, 9, 16, 25 ...	10:15 $n^2 - 2n + 1$	23. A bag contains 3 blue beads and 7 green beads. Two beads are selected without replacement. Work out the probability of selecting two green beads.	10:28 $7/10 \times 6/9$ $=7/15$
4. Convert $0.\overline{36}$ to a fraction.	10:4 $4/11$	14. The nth term of a geometric sequence is $\sqrt{7}^n$. Work out the first 3rd and 4th term.	10:16 $7\sqrt{7}, 49$	24. Work out the MEDIAN. 	10:29 43 years
5. With 5 starters, 7 mains & 6 desserts, how many possible 3 course meals are there?	10:5 $5 \times 7 \times 6$ =210	15. To get fit, Jay walks 2miles & will increase the distance by 5% each week. How far will he walk in the 10th week?	10:17 2×1.05^{10} =3.26miles		
6. Expand: $(2x+1)(x+2)(x-2)$	10:6 $(2x+1)(x^2-4)$ $=2x^3 - 8x + x^2 - 4$	16. A=40 D= 120 Find an equation for A in terms of D if A is inversely proportional to D	10:18 $A=4800/D$		
7. Factorise: $4x^2 + 12x + 9$	10:7 $(2x+3)^2$	17. Find the angle of an arc length 4.2cm and a diameter of 9cm correct to nearest 1/10 degree.	10:21 53.5°	25. These box plots show the test scores for girls & boys. Who had the highest average score? 	10:30 Boys – higher median
8 Give the gradient of a line perpendicular to: $y = 2x + 1$	10:8 $-1/2$	18. Give the area of sector radius 4cm & angle 292° (correct to 3sf)	10:22 40.8cm^2		
9. Work out the equation of a line joining $(-1,2)$ and $(7,6)$	10:9 $y=0.5x+2.5$	19. Find the SA of a sphere of radius 8.6cm (correct to 3sf). ($SA=4\pi r^2$)	10:23 929cm^2		
10. Work out the roots of the quadratic graph with the equation: $x^2 - 8x + 7 = 0$	10:12 $x=7$ & 1	20. Give the volume of a sphere of radius 8.6cm (correct to 3sf). ($V = \frac{4}{3}\pi r^3$)	10:24 2660cm^3		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	