Maths Key Skills **Stage 9: Skill Check 2**

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

A: Number & Algebra

1. Write 5.3×10^3 as an ordinary number *9:1*

2. Write 2.4×10^{-2} as an ordinary number *9:1*

3. 8cm has been rounded to 1sf *9:2*
Express the limits in the form $a \leq x < b$ ≤ x <

4. Solve: $x^2 - 3x - 4 = 0$ *9:4*

5. Solve: $3x - 1 \geq 8$ and show the solution on the number line *9:5*

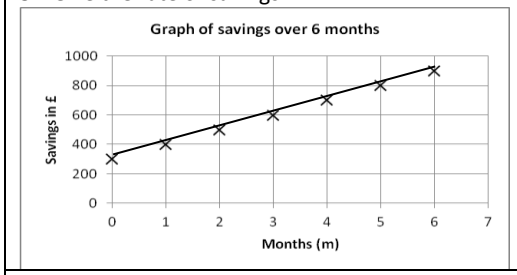
-1 0 1 2 3 4 5 6 7 8 9

6. Make 'y' the subject of the equation *9:6*
$3x + 4y = 12$

7. Solve the equation: $\frac{x}{2} - 3 = 1$ *9:7*

8. Write down the equation of a line parallel to *9:8*
$y = 3x + 2$

9. Give the rate of savings *9:9*



10. Evaluate: $5t^2 - 7$ when $t = 4$ *9:12*

B: Proportion, Geometry & Measure

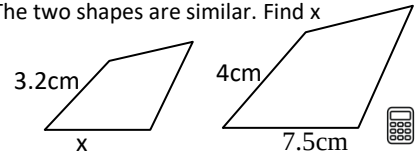
11. Work out the balance on £500 over 2 years at 5% compound interest *9:13*

12. The water bill had a 40% increase to £63. Find the original bill. *9:14*

13. 4kg of metal has a volume of $1.25m^3$. What is its density? *9:15*
D =

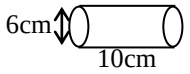
14. The time taken to paint a room is directly proportional to the number of people painting the room. TRUE or FALSE? *9:16*

15. The two shapes are similar. Find x *9:17*

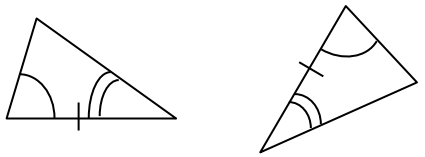


16. In multiples of π, work out the perimeter of a semicircle of diameter 7cm *9:18*

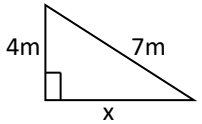
17. Work out the curved surface area of this cylinder in terms of π *9:20*



18. Give the condition of congruency: *9:21*



19. *9:22*



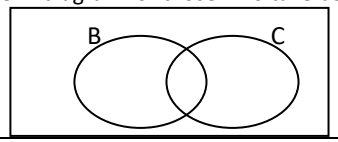
To find 'x' choose one calculation: Circle choice

$\sqrt{7^2 + 4^2}$ OR $\sqrt{7^2 - 4^2}$

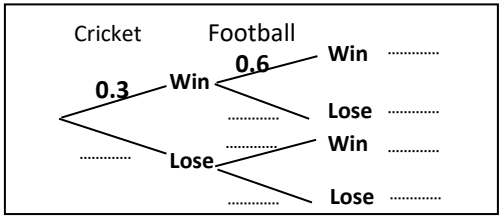
20. $If\ sinx = \frac{3}{5}$, find x (nearest ^{0}) *9:23*

C: Geometry & Measure, Statistics & Probability

21. Group B take Biology and group C take Chemistry. *9:27*
Shade the Venn diagram for those who take both subjects.



22. The probability a team will win cricket is 0.3, & win football is 0.6. Complete the tree diagram. *9:28*



23. Use the tree diagram to work out the probability that the team will lose both games *9:28*

24. Construct the perpendicular bisector of the line segment *9:25*

25. A homework survey was conducted by 3 students *9:29*

Students	Number of people surveyed
Alice	10
Ben	50
Carol	100

Maggie says "Carol's results will be the most accurate" Why?

because.....
.....
.....

Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)		G (20-25)