Maths Key Skills **Stage 9: Skill Check 3**

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

A: Number & Algebra

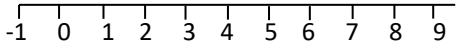
1. Write 2450 in standard form *9:1*

2. Write 0.0002 in standard form *9:1*

3. 2.4cm has been rounded to 1dp
Express the limits in the form a ≤ x < b *9:2* ≤ x <

4. Factorise: $x^2 - 8x + 15$ *9:4*

5. If **-1 < x < 4** and show the solution for **x** on the number line *9:5*

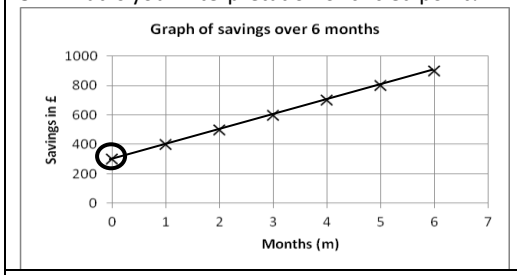


6. Make 'a' the subject of the equation
2(a-5)=b *9:6*

7. Solve the equation: $\frac{2x}{3} - 2 = 4$ *9:7*

8. Write down the equation of a line parallel to
y = 5-2x *9:8*

9. What is your interpretation of circled point? *9:9*



10. Evaluate A when A= $p^2 - 4p$ and p = -2 *9:12*

B: Proportion, Geometry & Measure

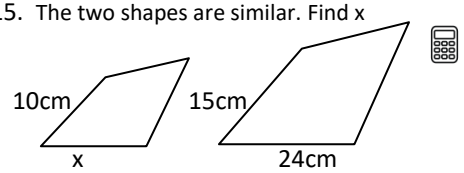
11. Work out the simple interest on £600 over 2 years at 4% interest *9:13*

12. A car is reduced by 30% to £8400. Find the original cost. *9:14*

13. Volume = $5m^3$. Density = $7130kg/m^3$ *9:15*
What is the mass?

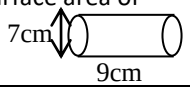
14. A man earns £20 per hour. His hours and pay are in direct proportion. TRUE or FALSE? *9:16*

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

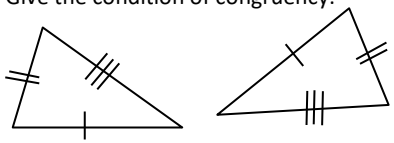


16. In multiples of π, work out the area of a semicircle of diameter 8cm *9:18*

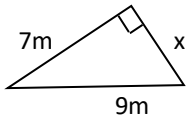
17. Work out the curved surface area of this cylinder in terms of π *9:20*



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



19. *9:22*



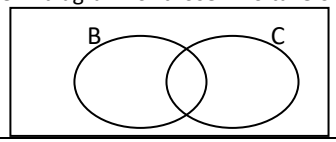
To find 'x' choose one calculation: Circle choice

$\sqrt{7^2 + 9^2}$ OR $\sqrt{9^2 - 7^2}$

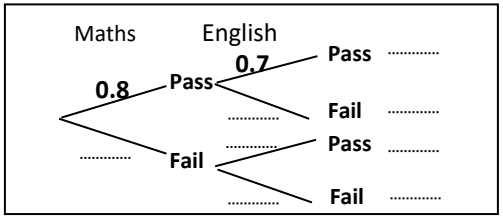
20. If $\cos 54 = \frac{x}{5}$, find x (correct to 1dp) *9:23*

C: Geometry & Measure, Statistics & Probability

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



22. The probability of passing Maths is 0.8, & English is 0.7. Complete the tree diagram. *9:28*



23. Use the tree diagram to work out the probability of passing only one of the subjects *9:28*

24. Construct the perpendicular to the point on the line *9:26*

25. A survey of 40 is to be done at a Youth Club to find out the activities to include in the programme. The total number of youth members is: *9:29*

Ages	Boys	Girls
11-14	42	15
15-18	16	37

It was decided to ask 10 from each category.
Do you think this is a fair approach? Give a reason.

YES or **NO** – circle your answer
Reason.....
.....

Total (A)		Total (B)		Total (C)	