## Maths Key Skills

Name: .............................................................
Date:
Stage 8: Skill Check 15 - Answers

\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline A: Number \& Algebra \& \& \multicolumn{2}{|l|}{B: Algebra, Proportion, Geometry \& Measure} \& \multicolumn{4}{|l|}{C: Statistics \& Probability} \\
\hline 1. If \(5.6 \times 3.5=19.6\) What is \(196 \div 3.5\) ? \& \({ }^{8: 1} 56\) \& 11. Expand \& simplify \((y+3)(y-4)\) \& \[
y^{2}-y-12
\] \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
21. On a spinner
\[
\begin{aligned}
\& P(4)=0.06 \\
\& P(2)=0.28
\end{aligned}
\] \\
Work out x
\end{tabular}}} \& \[
4
\] \& \[
\begin{gathered}
8: 26 \\
y / 1-0.34) \\
=z /(0.66)
\end{gathered}
\]
\[
=1 / 20.66)
\] \\
\hline 2. Write 100 as the product of its prime factors. Circle your choice \(2^{2} \times 25 \quad 4 \times 5^{2} \quad 2^{2} \times 5^{2}\) \& \[
\Sigma
\] \& 12. 2 out of 7 nursery children were left handed. Write the ratio of Right to Left handed. \& \[
\begin{array}{r}
8: 17 \\
\text { R:L } \\
5: 2
\end{array}
\] \& \& \& \[
y
\] \& =0.33 \\
\hline 3. Estimate by rounding to 1 sf an answer to: \(\frac{10.1 \times 29.7}{5.9-3.1}\) \& \[
\begin{array}{|l}
8: 3 \\
\frac{10 \times 30}{6-3} \\
=100
\end{array}
\] \& 13. For green, you mix 8 parts yellow to 6 parts blue. How much blue is needed to add to 12 litres of yellow? \& 8:18 9litres \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{22. 100 Year 8 s opted for History or Geography. Out of the 67 who opted for Geography, 42 were girls. 18 girls opted for History. What is the probability of choosing a boy who opted for History?}} \& \[
\frac{15}{100} \text { or } \frac{3}{20}
\] \\
\hline 4. If \(2^{9}=512\), what is \(2^{8}\) ? \& \[
\begin{array}{|r|}
\hline 8: 4 \\
1024 \div 2 \\
=256
\end{array}
\] \& 14. To decrease an amount by \(7 \%\), circle your choice of multiplier
\[
\begin{array}{|llll}
\times 1.07 \& \times 0.93 \& \times 0.07 \& \times 1.7 \\
\hline
\end{array}
\] \&  \& \& \& \& \\
\hline 5. Factorise: \(4 y-10 y^{2}\) \& \[
{ }^{8: 6} 2 \mathrm{y}(2-5 \mathrm{y})
\] \& 15. Chris cycles at an average speed of 8 mph . If he cycles for \(6 \frac{1}{2}\) hours, how far does he travel? \& \begin{tabular}{l}
8:20 \\
52miles
\end{tabular} \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{23. A spinner has equal sections \(1,2,3 \& 4\). The spinner is spun twice. What is the probability of scoring a total of at least 5 from 2 spins?}} \& \[
\frac{8: 28}{\frac{10}{16} \text { or } \frac{5}{8}}
\] \\
\hline 6. Simplify: \(2^{-2}\) \&  \& 16. What is the size of the interior angle of an octagon? \& \[
\begin{aligned}
\& 8: 21 \\
\& \quad 135^{\circ}
\end{aligned}
\] \& \& \& \& \\
\hline 7. Make ' \(b\) ' the subject of the formula
\[
P=2 l+2 b
\] \& \[
\begin{aligned}
\& 8: 8 \\
\& b
\end{aligned}=\frac{\mathrm{P}-21}{2}
\] \& 17. Give the circumference of a circle with radius 2.4 m in terms of \(\pi\). \& \[
\begin{aligned}
\& 8: 22 \\
\& 4.8 \pi \mathrm{~m}
\end{aligned}
\] \& 24. Work o \& the mod
Score
1-5 \& \begin{tabular}{l}
class interval. \\
Frequency \\
2
\end{tabular} \& 8:29 \\
\hline 8. Solve: \(3(x-5)=x-4\) \& \[
\begin{gathered}
8: 10 \\
3 x-15=x-4 \\
2 x=11 \\
x=5.5
\end{gathered}
\] \& \begin{tabular}{l}
18. Work out the volume of this prism. \\
6 cm
\end{tabular} \& \[
\begin{aligned}
\& 8: 23 \\
\& 126 \mathrm{~cm}^{3}
\end{aligned}
\] \&  \& \begin{tabular}{c}
\(6-10\) \\
\hline \(11-15\) \\
\hline \(16-20\) \\
\hline \(21-25\)
\end{tabular} \& \[
\begin{aligned}
\& 9 \\
\& \hline 5 \\
\& \hline 3 \\
\& \hline 1 \\
\& \hline
\end{aligned}
\] \& 6-10 \\
\hline 9. Write down the equation of this graph. \& \[
\begin{array}{r}
8: 12 \\
y=x-3
\end{array}
\] \& 19. Enlarge shape A by sf \(1 / 2\) centre X \&  \& \multicolumn{3}{|l|}{25. Can you extrapolate to give the test result for 50days missed?
\(\qquad\)} \& \begin{tabular}{l}
\(8: 30\)

NO <br>
Because the result would go
\end{tabular} <br>

\hline 10. Give the nth term of this sequence:

$$
9,13,17,21, \ldots . . . .
$$ \& \[

$$
\begin{array}{|l}
\hline 8: 15 \\
4 n+5
\end{array}
$$

\] \& 20. A map has a scale of 1:20000 What scale distance would represent 100 m ? \& \[

$$
\begin{gathered}
8: 25 \\
0.5 \mathrm{~cm} \text { or } \\
5 \mathrm{~mm}
\end{gathered}
$$
\] \&  \&  \&  \& negative value <br>

\hline Total (A) \& \& Total (B) \& \& \multicolumn{3}{|c|}{Total (C)} \& <br>
\hline Test Total ( $\mathrm{A}+\mathrm{B}+\mathrm{C}$ ) \& \& R (0-9) \& Y (10-19) \& \& \& G (20-25) \& <br>
\hline
\end{tabular}

