<div style="border:1px solid black; display:inline-block; padding:10px;">

Number 3F Assessment

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Foundation Level   🚫 1 - 26   🖩 27 - 29

Clip	Grade	Title of clip	Question(s)	Marked out of	Score	%
78	3	Product of Primes	1	2	___	__
79	3	Highest Common Factor (HCF)	2	2	___	__
80	3	Lowest Common Multiple (LCM)	3 - 4	4	___	__
81	3	Squares, Cubes and Roots	5	1	___	__
82	3	Working with Indices	6	1	___	__
83	3	Standard Form	7 - 9	10	___	__
84	3	Decimals and Fractions	10 - 11	3	___	__
85	3	Fractions, Percentages, Decimals	12	2	___	__
86	3	Percentage of an Amount (Calc.)	27	1	___	__
87	3	Percentage of an Amount (Non-Calc.)	13	2	___	__
88	3	Change to a Percentage (Calc.)	28	2	___	__
89	3	Change to a Percentage (Non-Calc.)	14	2	___	__
90	3	Rounding to Significant Figures	15 - 16	3	___	__
91	3	Estimating Answers	17	2	___	__
92	3	Using Place Value	18	3	___	__
131	4	Index Notation	19 - 20	6	___	__
132	4	Introduction to Bounds	21, 29	4	___	__
154	5	Negative Indices	22 - 23	5	___	__
155	5	Error Intervals	24	2	___	__
156	5	Mathematical Reasoning	25 - 26	3	___	__

Out of 60   TOTAL SCORE   _____

Final Percentage [___] %

1) Express 2100 as the product of its prime factors. _____ **2**

2) Find the highest common factor of 40 and 72. _____ **2**

3) Find the lowest common multiple of 12 and 15. _____ **2**

4) The first buses to Y and Z leave a bus station at 7 am.
   Buses to Y leave every 25 minutes.
   Buses to Z leave every 20 minutes.

   When will buses to Y and Z next leave at the same time? _____ **2**

5) Work out the value of $5^2 + \sqrt[3]{27}$ _____ **1**

6) Work out the value of $2^3 + 3^4 + 10^5$ _____ **1**

7) Write the following in standard form

   a) 471000000 _____ **2**

   b) 0.0000083 _____ **2**

8) Write the following as normal numbers

   a) 7.6×10^5 _____ **2**

   b) 2.3×10^{-4} _____ **2**

9) Work out $(1.8 \times 10^5) \div (9 \times 10^2)$

   Give your answer in standard form. _____ **2**

10) Change 0.64 to a fraction, giving your answer in its simplest form. _____ **1**

11) Change $\dfrac{5}{8}$ to a decimal. _____ **2**

12) Write these numbers in order of size, smallest to largest. 52% $\dfrac{4}{5}$ 0.47 $\dfrac{4}{10}$ 60%

    _____ **2**

13) Find 35% of £80 _____ **2**

14) Mandy scored 30 out of 80 in a test.

    What was her score as a percentage? _____ **2**

15) $236 \times 148 = 34\,928$

    a) Round this answer to 2 significant figures. _____ **1**

    b) Round this answer to 1 significant figure. _____ **1**

16) $64 \div 238 = 0.268907563\ldots$

Round this answer to 2 significant figures. _____ **1**

17) Estimate the answer to $\dfrac{774 \times 219}{384}$

_____ **2**

18) Using the information that $6.8 \times 24 = 163.2$, write down the value of

a) 680×24 _____ **1**

b) 68×0.24 _____ **1**

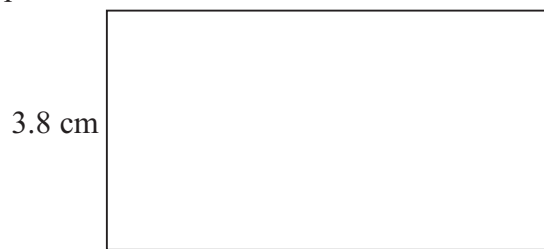c) $16.32 \div 68$ _____ **1**

19) Simplify the following, leaving your answers in index form.

a) $3^4 \times 3^5 \times 3 =$ _____ **1**   b) $\dfrac{5^7 \times 5^2}{5 \times 5^4} =$ _____ **2**   c) $(2^4)^3 =$ _____ **2**

20) What is the value of 8^0? _____ **1**

21) The length of a rectangle is 15.6 cm correct to 1 decimal place.
The width of a rectangle is 3.8 cm correct to 1 decimal place.

15.6 cm

3.8 cm

Calculate the lower bound for the perimeter
of the rectangle.

_____ **2**

22) Find the value of

a) 6^{-2} _____ **1**

b) $3^{-3} \times 10^{-2}$ _____ **2**

23) Write these numbers in order of size, starting with the smallest.
2^{-2} 0.2 2^0 2^{-1} 2^3 -2

_____ **2**

24) A number, x, rounded to 2 significant figures is 260.

Write down the error interval for x. _____ **2**

25) Ethan says,

"Squaring a number always results in an even number."

Write an example to show that he is not correct. _____ **1**
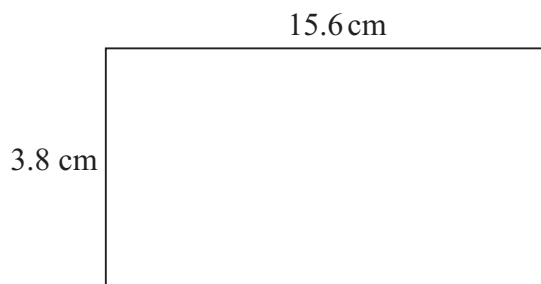
26) A is an even number.
B is an odd number.
Explain why $A + B + 1$ is always an even number.

2

27) Work out 72% of £483 _____   **1**

28) Change 46 out of 73 to a percentage.

Give your answer correct to 1 decimal place. _____   **2**

29) The length of a rectangle is 15.6 cm correct to 1 decimal place.
The width of a rectangle is 3.8 cm correct to 1 decimal place.

15.6 cm

3.8 cm

Calculate the upper bound for the area of the rectangle. _____   **2**