Fractions, Decimals and Percentages KS2 SATS Standard Worksheet

1. Jack ate half the cherries on the plate.

These are the cherries that were left.

How many cherries were on Jack’s plate before he ate half of them?

2. Tick (✓) the two shapes that have three-quarters shaded.

3. Here is part of a number line.

Write in the numbers missing from the two empty boxes.
4.
Tom and Nadia have 16 cards each.

Tom gives Nadia 12 of his cards.

How many cards do Tom and Nadia each have now?

<table>
<thead>
<tr>
<th>Tom</th>
<th>Nadia</th>
</tr>
</thead>
</table>

Lucy also has 16 cards.

She gives a quarter of her cards to Kiran.

How many cards does Lucy give to Kiran?

5.
Here are 21 apples.

Put a ring around **one third** of them.

6.
Here is part of a number line.

Write the **missing** number in the box.

7.
Shade **one third** of this shape.
Shade one quarter of this shape.

8. Tick (✓) two cards that give a total of 5

9. Write the two missing numbers in this sequence.

10. Meg has 20 pet stickers to go on this page.

\[ \frac{1}{4} \quad \frac{1}{2} \quad \frac{3}{4} \quad 1 \quad 1 \frac{1}{2} \quad 2 \]

\[ \text{Pets} \]

\[ \frac{1}{4} \] of them are dog stickers.

\[ \frac{1}{2} \] of them are cat stickers.

The rest are rabbit stickers.

How many rabbit stickers does she have?
11. Circle the two fractions that are greater than $\frac{1}{2}$

\[
\begin{array}{cccc}
\frac{1}{8} & \frac{6}{10} & \frac{5}{8} & \frac{3}{10}
\end{array}
\]

1 mark

12. Here is a square.

What fraction of the square is shaded?

1 mark

13. Circle the two fractions that have the same value.

\[
\begin{array}{ccc}
\frac{2}{10} & \frac{1}{3} & \frac{1}{2}
\end{array}
\]

\[
\begin{array}{c}
\frac{5}{10} \quad \frac{1}{4}
\end{array}
\]

1 mark

14. Draw an arrow (\(\rightarrow\)) on the number line to show $\frac{13}{4}$

1 mark

15. Shade $\frac{1}{4}$ of this shape.

1 mark
16. John had £5

He gave 25% of it to charity.

How much did he give? £ __________

17. Tick (✓) the two numbers which have a total of 10

0.01  0.11  1.01

9.09  9.9  9.99

1 mark

18. Write in the missing number on this number line.

1 mark

19. A larger bottle of juice will hold 30% more than this bottle.

How much will the larger bottle hold? ml __________

1 mark

20. Match each box to the number which has the same value.

One has been done for you.

3/4  1/2  4/5

0.5  0.6  0.75

0.4  0.3  __________

1 mark
21. Calculate 60% of 765.

22. Draw one line to join two fractions which have the same value.

- \( \frac{4}{7} \)
- \( \frac{1}{2} \)
- \( \frac{2}{8} \)
- \( \frac{2}{5} \)
- \( \frac{1}{3} \)
- \( \frac{1}{4} \)

23. Circle two numbers which add to make 0.12

- 0.1
- 0.5
- 0.05
- 0.7
- 0.07
- 0.2

24. Write in the missing numbers.

One has been done for you.

- 6.01
- 9.51
- 7.75

25. Here is a grid made of squares.

Shade 10% of this grid.
26. Write the same number in each box to make this correct.

\[ \square + \square + \square = 10.5 \]

1 mark

27. Calculate \( \frac{3}{4} \) of 840

\[ \square \]

1 mark

28. Circle the two fractions that are equivalent to 0.6

\[ \frac{6}{10}, \frac{1}{60}, \frac{60}{100}, \frac{1}{6} \]

1 mark

29. Put a tick (\( \checkmark \)) in each row to complete this table.

One has been done for you.

<table>
<thead>
<tr>
<th>greater than ( \frac{1}{2} )</th>
<th>less than ( \frac{1}{2} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.9</td>
<td>( \checkmark )</td>
</tr>
<tr>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>( \frac{11}{20} )</td>
<td></td>
</tr>
<tr>
<td>0.21</td>
<td></td>
</tr>
</tbody>
</table>

2 marks

30. Here is a chocolate bar.

William eats 3 pieces and Amber eats 2 pieces.

What fraction of the chocolate bar remains?
31. Match each box to the correct number.

One has been done for you.

\[
\begin{align*}
\frac{1}{2} \text{ of } 30 & \quad 45 \\
\frac{1}{3} \text{ of } 75 & \quad 40 \\
\frac{1}{5} \text{ of } 150 & \quad 35 \\
\end{align*}
\]

1 mark

32. Karen makes a fraction using two number cards.

She says,

‘My fraction is equivalent to \( \frac{1}{2} \)
One of the number cards is 6’

What could Karen’s fraction be?

Give both possible answers.

\[
\begin{align*}
\frac{?}{?} & \quad \text{or} \quad \frac{?}{?} \\
\end{align*}
\]

2 marks

33. Here is part of a number line.

Write in the two missing numbers.
34. The diagram is made of squares.
What fraction of the diagram is shaded?

35. Calculate \( \frac{1}{5} \) of 325

36. Write these fractions in order of size starting with the smallest.

37. Write these numbers in order.
One has been done for you.
38. Write in the missing numbers.

30% of 60 is ________

1 mark

30% of ________ is 60

1 mark

39. Calculate \(31.6 \times 7\)

1 mark

40. Here is a flag.

What is the area of this flag?

2 marks

20% of the flag is blue.

What area of the flag is blue?
41. Complete these fractions to make each equivalent to \( \frac{3}{5} \)

\[
\begin{array}{c}
\frac{12}{10} \\
\frac{15}{12}
\end{array}
\]

2 marks

42. Calculate 15\% of 460

1 mark

43. Here are some number cards.

\[
\begin{array}{cccc}
7 & 5 & 9 & 3
\end{array}
\]

Use two of the cards to make a fraction which is less than \( \frac{1}{2} \).

1 mark

How much less than 1 is your fraction?

1 mark

44. Calculate 5\% of £3600

£

1 mark

45. There are 24 coloured cubes in a box.

Three-quarters of the cubes are red,
four of the cubes are blue
and the rest are green.

How many green cubes are in the box?

One more blue cube is put into the box.

What fraction of the cubes in the box are blue now?

46. Which is larger, $\frac{1}{3}$ or $\frac{2}{5}$?

47. The Year 6 children in a school were asked to choose a musical instrument. This is a pie chart of their choices.

Estimate what fraction of the children chose a drum.

There are 80 children in Year 6.

Estimate the number of children who chose a violin.
Explain how you decided.

..........................................................................................................................................

..........................................................................................................................................

1 mark

15% of the 80 children chose a guitar.

How many children is this?

2 marks

48. Calculate \( \frac{3}{8} \) of 980

49. Kelly chooses a section of a newspaper.

It has 50 words in it.

She draws a bar chart of the number of letters in each word.

What fraction of the 50 words have more than 6 letters?

Kelly says,
23 of the 50 words have less than 5 letters.  
This shows that nearly half of all the words used in the newspaper have less than 5 letters in them.

Explain why she could be wrong.

...............................................................................................................................
...............................................................................................................................

1 mark

50. Calculate of \( \frac{5}{12} \) of 378

1 mark
51. 250 000 people visited a theme park in one year.

15% of the people visited in April and

40% of the people visited in August.

How many people visited the park in the rest of the year?

Show your method. You may get a mark.

2 marks

52. Calculate 24% of 525

1 mark