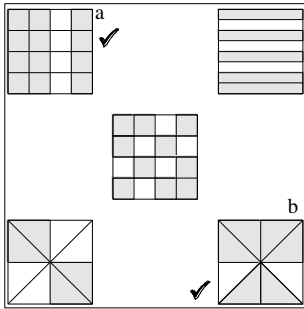


Fractions, Decimals and Percentages KS2 SATS Standard Worksheet Answers

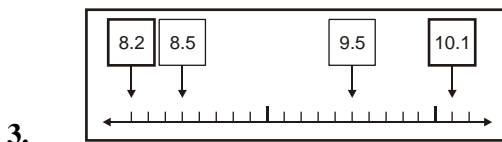
1. 20 (cherries) [1]

2. ✓s on shapes a and b.



If extra shapes are ticked, do not award the mark unless the child clearly indicates which are his or her final selection.

[1]



- (a) Writes **8.2** in the left-hand box. 1
 (b) Writes **10.1** in the righthand box. 1

[2]

4. (a) Tom **4** Nadia **28** 1m
 (b) 4 1m

[2]

5. Ring drawn enclosing 7 apples.

Accept any other clear way of indicating 7 apples.

[1]

6. 5.7 1

Accept $5\frac{7}{10}$ or equivalent.

[1]

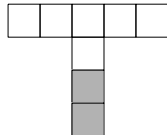
7. (a) Equivalent of 2 squares shaded, eg 1m



Accept part squares shaded as long as the intention is clear.

- (b) Equivalent of 2 squares shaded, eg

1m



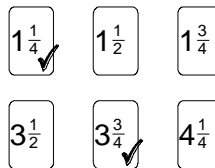
Accept part squares shaded as long as the intention is clear.

Accept inaccuracies in shading providing the intention is clear.

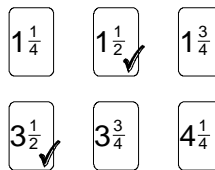
[2]

8. Two cards ticked as shown:

1m



OR

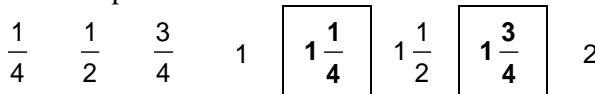


Accept alternative unambiguous indications such as circling or a line joining a correct pair of cards.

[1]

9. Boxes completed as shown:

1



Both numbers must be correct for the award of the mark.

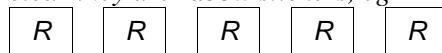
[1]

10. 5

1

Do not accept $\frac{1}{4}$

Accept five stickers indicated on the drawing, provided it is clear they are **rabbit** stickers, eg



[1]

11. Two fractions circled as shown:

1



Both fractions must be correct for the award of the mark.

Accept any other clear way of indicating the two correct fractions, such as underlining or ticking.

[1]

12. $\frac{1}{4}$ OR $\frac{2}{8}$

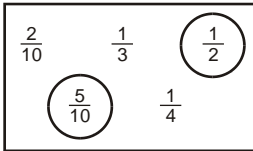
1 m

Accept equivalent fractions.

[1]

13. Circles two fractions as shown:

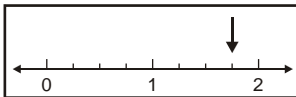
1

*Both fractions must be correct for the award of the mark.**Accept any other clear way of indicating the correct fractions, such as ticking or underlining.*

[1]

14. An arrow drawn on the number line as shown:

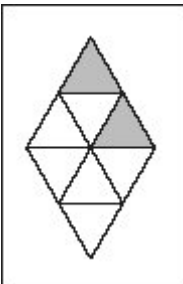
1

*Accept any other clear way of indicating $1\frac{3}{4}$ on the number line as long as the intention is clear.**Accept slight inaccuracies, provided the intention is clear.*

[1]

15. Any two of the eight triangles shaded, eg

1

*Accept any other unambiguous indication of the correct fraction, such as four half-triangles shaded.*

[1]

16. £1.25

Accept also £1-25, £1.25p or £1 25 (with a clear gap between the 1 and 25).

[1]

17. Two cards ticked as shown:

1

0.01 ✓	0.11	1.01
9.09	9.9	9.99 ✓

Accept alternative unambiguous indications such as circling or a line joining the correct pair of cards.

[1]

18. 9.8

1m

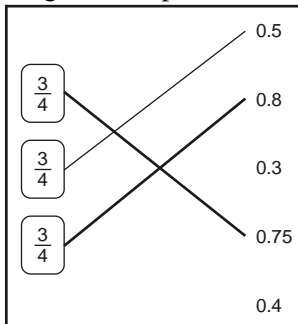
[1]

19. 650

[1]

20. Diagram completed correctly as shown:

1



Both lines must be drawn correctly for the award of the mark.
Lines need not touch boxes or numbers exactly, provided the intention is clear.

[1]

21. 459

1

[1]

22. $\frac{2}{8}$ joined to $\frac{1}{4}$

1

The line need not touch the fractions, provided the intention is clear.

Do not award the mark if more than one pair of fractions are joined.

[1]

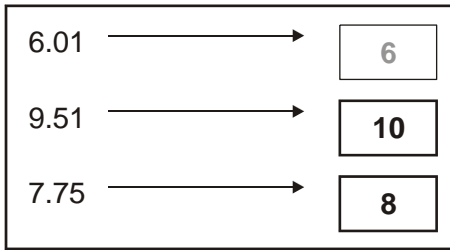
23. 0.1 0.5 (0.05) 0.7 (0.07) 0.2

Accept alternative indications, eg the numbers crossed or underlined.

[1]

24. Boxes completed as shown:

1



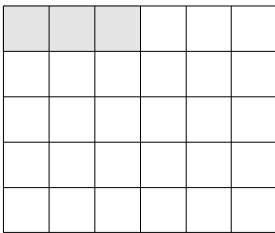
Both answers must be correct for the award of the mark.

Do not accept 10.00 **OR** 10.0 **OR** 8.00 **OR** 8.0

[1]

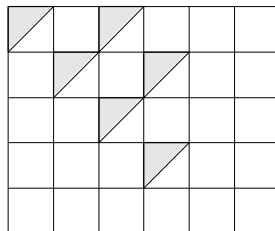
25. Any three squares shaded, eg

1



Shaded squares need not be joined in any way.

Shading may be in terms of part squares, eg



Accept slight inaccuracies in shading provided the intention is clear.

[1]

26. Boxes completed as shown:

1

$$\boxed{3.5} + \boxed{3.5} + \boxed{3.5} = 10.5$$

Accept 3.5 written once.

$$\text{Accept } 3\frac{1}{2}$$

[1]

27. 630

1

[1]

28. Two fractions circled as shown:

1

$$\left(\frac{6}{10}\right) \quad \frac{1}{60} \quad \left(\frac{60}{100}\right) \quad \frac{1}{6}$$

Both fractions must be indicated for the award of the mark.

Accept any other clear way of indicating the correct fractions, such as ticking or underlining.

[1]

29. Award **TWO** marks for the table correctly completed as shown:

Up to 2m

✓	
	✓
✓	
	✓

If the table is not correctly completed award **ONE** mark for any two out of three ticks correct.*Do not accept any row that has both columns ticked.**Accept unambiguous alternatives to ticks, eg 'yes'.*

[2]

30. $\frac{3}{8}$

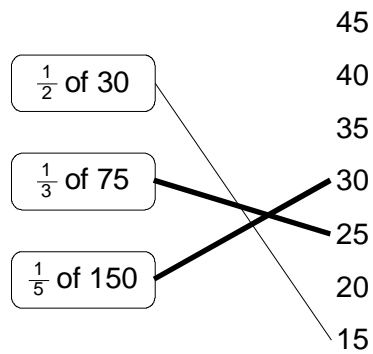
1

Accept equivalent fractions or decimals, eg 0.375

[1]

31. Diagram completed correctly as shown:

1m

*Lines need not touch boxes or numbers exactly, provided the intention is clear.**Do not accept two or more lines emanating from the same left-hand box.*

[1]

32. Award **TWO** marks for both fractions correct as shown:

Up to 2m

$$\frac{\boxed{3}}{\boxed{6}} \quad \text{OR} \quad \frac{\boxed{6}}{\boxed{12}}$$

If the answer is incorrect, award **ONE** mark for one fraction correct.*Accept fractions written in either order.*

[2]

33. (a) $1\frac{1}{2}$ in the first box 1 m
Accept equivalent fractions or decimals, eg 1.5
- (b) $2\frac{3}{4}$ in the second box 1 m
Accept equivalent fractions or decimals, eg 2.75
- [2]**

34. $\frac{5}{9}$ 1
Accept equivalent fractions.
- [1]**

35. 65 1
- [1]**

36.

$\frac{3}{5}$	$\frac{3}{4}$	$\frac{17}{20}$	$\frac{9}{10}$
---------------	---------------	-----------------	----------------

1
Fractions must be written in the correct order for the award of the mark.
Accept equivalent fractions or decimals.
- [1]**

37. All four numbers correctly placed as shown: 1
- | | |
|-------------|----------|
| 3.3 | largest |
| 3.23 | |
| 3.2 | |
| 3.03 | |
| 3 | |
| | smallest |
- All four numbers must be placed correctly for the award of the mark.*
Transcription errors are acceptable only if they do not result in a wrongly ordered list.
- [1]**

38. (a) 18 1
Do not accept 18%
- (b) 200 1
Do not accept 200%
If the answer for 23a is 18% AND the answer for 23b is 200%, award ONE mark only in the 23b box.
- [2]**

39. 221.2 1 m [1]
40. (a) Award **TWO** marks for 7500cm² even if there are errors in working. up to 2
 If answer is incorrect, award **ONE** mark for evidence of attempt to calculate 60×125 by any appropriate method involving multiplication (not repeated addition only) and some correct partial solution, eg:
- $60 \times 100 + 60 \times 20 + 60 \times 5 = 6000 + 120 + 30$ (partially correct)
 - $10 \times 125 \times 6 = 1205 \times 6$ (incorrect answer given)
 - $60 \times 125 = 750$ (incorrect answer given)
- (b) Award **TWO** marks for the correct answer of 1500cm² up to 2
OR
TWO marks for correct calculation of 20% of answer given to (a)
 If the answer is incorrect award **ONE** mark for evidence of an attempt to calculate 20% by an appropriate method, eg:
- 20% is $1/5$, so that's $7500 \div 5 =$ (incorrect answer given)
- In marking part (b) give credit to children who correctly calculate 20% of their answer to (a), even if their answer to (a) was incorrect.*
- The writing of an expression such as:*
- $20/100 \times 7500$
 - 0.2×7500
- alone, without working, is insufficient for the award of the mark.* [4]
41. Fractions completed as shown below: 1m
- $$\begin{array}{ccc} \boxed{6} & & \boxed{9} \\ \hline 10 & & 15 \\ & \frac{12}{\boxed{20}} & \end{array}$$
- All three fractions must be correct for the award of the mark.* [1]
42. 69 1m [1]
43. (a) $\frac{\boxed{3}}{\boxed{7}}$ OR $\frac{\boxed{3}}{\boxed{9}}$ OR $\frac{\boxed{3}}{\boxed{11}}$ OR $\frac{\boxed{5}}{\boxed{11}}$ 1
- Accept only fraction formed by the cards given.*
- (b) $\frac{4}{7}$ OR $\frac{6}{9}$ OR $\frac{8}{11}$ OR $\frac{6}{11}$ 1
- consistent with part (a).
- If part (a) is incorrect, accept working of $1 -$ (answer to part (a)) provided the numbers used are on the cards.*
- Accept decimals.*

If answer to part (a) is greater than 1, answer to part (b) must be negative.

[2]

44. £180

1 m

Do not accept 180%

[1]

45. (a) Award **TWO** marks for the correct answer of 2

Up to 2m

If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg

$$\frac{3}{4} \text{ of } 24 = 18$$

$$\text{green} = 24 - 18 - 4$$

Answer need not be obtained for the award of the mark.

(b) $\frac{1}{5}$

1m

Accept equivalent fractions.

Do not accept '1 in 5' OR '1 : 5'.

[3]

46. An appropriate explanation which recognises that:

1m

$$\frac{1}{3} = \frac{5}{15} \text{ and } \frac{2}{5} = \frac{6}{15}$$

No mark is awarded for writing $\frac{2}{5}$ alone.

OR

$$\frac{1}{3} = \frac{2}{6} \text{ which is less than } \frac{2}{5}$$

Do not accept vague or arbitrary explanations, eg

- 'Because $\frac{2}{5}$ is bigger than $\frac{1}{3}$ ';
- 'Because $\frac{1}{3}$ comes first on a number line'.

OR

that $\frac{1}{3}$ is less than $\frac{2}{5}$ because $3 \times \frac{2}{5}$ is greater than 1

[1]

47. (a) The answer is approximately 1/7. Accept any fraction, percentage or decimal in the range:

1

- 1/9 to 1/5, inclusive
- 11% to 20%, inclusive
- 0.11 to 0.2, inclusive

(b) The correct answer is 10. Accept any number in the range 8 to 12, **inclusive**.

1

- (c) The explanation should make reference, in some form, to appropriate fractional estimates, eg: 1
- “Because it looks like a quarter of a half and that’s 10.”
 - “I thought the violin looked like half the trumpet and that was about a quarter.”
 - “I decided this because $\frac{1}{4}$ was 20 children, so I halved 20 and made it 10.”
- Explanations which lack specific reference to appropriate fractions should not be awarded the mark, eg:*
- “Because it’s a bit less than the trumpet.”
 - “Because there are 6 parts to the pie chart.”
- (d) Award **TWO** marks for the correct answer of 12, even if there are errors in the working. up to 2
- Award **ONE** mark if the answer is incorrect, but there is evidence of an attempt to calculate 15% of 80 by any method, eg:
- $15/100 \times 80 =$ (incorrect answer given)
 - 10% of 80 = 8, 5% is 4, so 15% of 80 = (incorrect answer given)
 - 1% of 80 = $80/100 = 4/5$, so 15% = $4/5 \times 15 =$ (incorrect answer given)
- The writing of “ $15/100 \times 80$ ” (or equivalent) **alone** is **not** sufficient evidence of an attempt to calculate.*
- [5]
48. 367.5 OR $367\frac{1}{2}$ 1m [1]
49. (a) $\frac{1}{5}$ OR $\frac{10}{50}$ 1
- Accept other equivalent fractions, eg: $\frac{20}{100}$*
- (b) Explanations which imply that the results from a small sample cannot safely be applied to a large one, eg: 1
- ‘You could be wrong because every section is different’
 - ‘The article is only a small proportion of the whole newspaper’
 - ‘The rest could be different’
 - ‘You can’t judge a whole newspaper by one article’
- Do not accept vague or arbitrary explanations such as:
‘She might not have counted right’;
‘The words in the newspaper might be big’;
‘There are more bigger words than small’.*
- [2]
50. 157.5 OR $157\frac{1}{2}$ 1m [1]
51. Award **TWO** marks for the correct answer of 112 500 Up to 2m
- If the answer is incorrect, award **ONE** mark for evidence of appropriate method, eg
- 45% of 250 000
- Answer need not be obtained for the award of **ONE** mark.*
52. 126 1

