

Independent Recap

Fractions
Week 8

Year 3

Arithmetic

1. $587 + 100$

2. $273 + 300$

3. 11×4

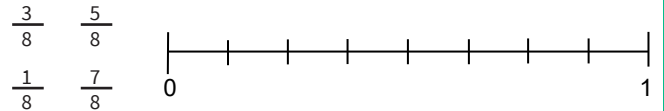
4. $64 \div 8$

Practice: Order Fractions

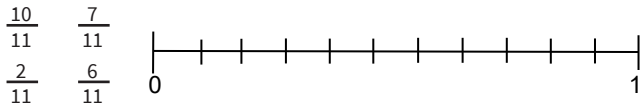
5. Recap: Explain how to order fractions with the same denominator.



6. Place these fractions on a number line.



7. Place these fractions on a number line.



9. Put these in descending order.

$\frac{1}{7}$ $\frac{1}{3}$ $\frac{1}{2}$ $\frac{1}{5}$ $\frac{1}{11}$

8. Put these in ascending order.

$\frac{3}{9}$ $\frac{4}{9}$ $\frac{1}{9}$ $\frac{8}{9}$ $\frac{5}{9}$

10. Explain how to order fractions with the same numerator.



11. Put these in ascending order.

$\frac{1}{10}$ $\frac{1}{4}$ $\frac{1}{9}$ $\frac{1}{6}$ $\frac{1}{8}$

12. Put these in descending order.

$\frac{2}{8}$ $\frac{5}{8}$ $\frac{3}{8}$ $\frac{6}{8}$ $\frac{7}{8}$

13. Are these in the correct order?

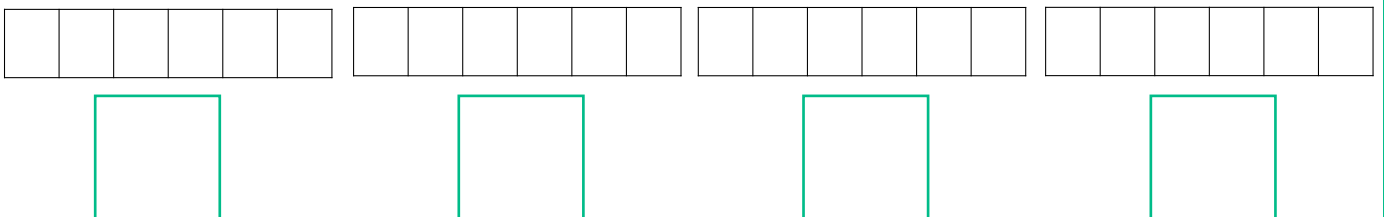
smallest $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{5}$ $\frac{1}{6}$ largest



Explain your answer clearly.

Challenge

14. Colour the bars to show different fractions. Label your fractions so they are in ascending order.



You might want to talk to an adult



Spot the mistake

Answers

Q no.	Question	Answer
1	$587 + 100$	687
2	$273 + 300$	573
3	11×4	44
4	$64 \div 8$	8
5	Explain how to order fractions with the same denominator.	To order fractions with the same denominator, compare the numerators only.
6	Place these fractions on a number line.	Correctly placed fractions.
7	Place these fractions on a number line.	Correctly placed fractions.
8	Put these in ascending order.	$\frac{1}{9}, \frac{3}{9}, \frac{4}{9}, \frac{5}{9}, \frac{8}{9}$
9	Put these in descending order.	$\frac{1}{2}, \frac{1}{3}, \frac{1}{5}, \frac{1}{7}, \frac{1}{11}$
10	Explain how to order fractions with the same numerator.	To order fractions with the same numerator, compare the denominator only.
11	Put these in ascending order.	$\frac{1}{10}, \frac{1}{9}, \frac{1}{8}, \frac{1}{6}, \frac{1}{4}$
12	Put these in descending order.	$\frac{7}{8}, \frac{6}{8}, \frac{5}{8}, \frac{3}{8}, \frac{2}{8}$
13	Are these in the correct order?	The order is reversed. This answer shows a misunderstanding of denominators. Pupils can become confused when working with fractions as the larger the denominator, the smaller the fraction. This does not follow the rules pupils have previously been taught about numbers.
14	Colour the bars to show different fractions. Label your fractions so they are in ascending order.	Answers will vary. Pupils should have coloured different fractions then ordered them 1st, 2nd, 3rd and 4th in ascending order.

Arithmetic


1. $237 - 100$

2. $492 - 300$

3. 23×8

4. $72 \div 4$

Practice: Add Fractions

5. Recap: Explain how to add the fractions below, include a diagram. 

$$\frac{1}{7} + \frac{3}{7}$$

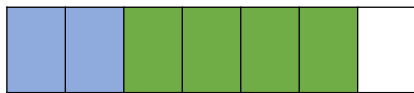
6. Use the diagram to help you calculate

$$\frac{2}{5} + \frac{1}{5}$$



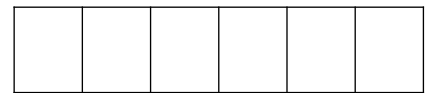
7. Use the diagram to help you calculate

$$\frac{2}{7} + \frac{4}{7}$$



8. Use the diagram to help you calculate

$$\frac{4}{6} + \frac{1}{6}$$



9. Use the diagram to help you calculate

$$\frac{5}{9} + \frac{1}{9} + \frac{2}{9}$$



10. Look at the calculation. Explain why the denominator does not change in the answer, even though the answer is over one whole. 

$$\frac{4}{5} + \frac{2}{5} = \frac{6}{5}$$


11. Complete the calculations.

a. $\frac{5}{11} + \frac{4}{11}$

b. $\frac{6}{10} + \frac{4}{10}$

12. What is the missing fraction?

$$\frac{5}{13} + \boxed{} = \frac{9}{13}$$

13. $\frac{4}{6} + \frac{2}{6} = \frac{6}{12}$ 

Is the answer correct?

Explain your answer.

Challenge

14. Write a fraction addition calculation that would give the answer $\frac{8}{10}$.

And another...

And another...

And another...



You might want to talk to an adult



Spot the mistake

Answers

Q no.	Question	Answer
1	$237 - 100$	137
2	$492 - 300$	192
3	23×8	184
4	$72 \div 4$	18
5	Explain how to add the fractions below, include a diagram.	$\frac{1}{7} + \frac{3}{7} = \frac{4}{7}$. When adding fractions with the same denominator, the denominator remains the same and the numerator is added. Answers should include an appropriate pictorial representation.
6	$\frac{2}{5} + \frac{1}{5}$	$\frac{3}{5}$
7	$\frac{2}{7} + \frac{4}{7}$	$\frac{6}{7}$
8	$\frac{4}{6} + \frac{1}{6}$	$\frac{5}{6}$
9	$\frac{5}{9} + \frac{1}{9} + \frac{2}{9}$	$\frac{8}{9}$
10	Look at the calculation. Explain why the denominator does not change in the answer, even though the answer is over one whole.	The denominator does not change as the whole has still been split into 5 equal parts, regardless of the number of wholes in the answer.
11	Complete the calculations.	a. $\frac{9}{11}$, b. $\frac{10}{10}$ or 1
12	What is the missing fraction?	$\frac{4}{13}$
13	Is the answer correct? Explain your answer.	The answer is incorrect as the denominators have been added as well as the numerators. The correct answer is $\frac{6}{6}$ or 1.
14	Write a fraction addition calculation that would give the answer $\frac{8}{10}$.	Accept any calculations that would produce the answer $\frac{8}{10}$. $\frac{1}{10} + \frac{7}{10}$ $\frac{2}{10} + \frac{6}{10}$ $\frac{3}{10} + \frac{5}{10}$ $\frac{4}{10} + \frac{4}{10}$ Calculations can be reversed to produce a different calculation.

Arithmetic

1. $187 + 20$

2. $348 + 385$

3. 32×5

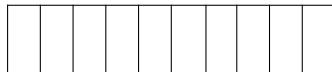
4. $\frac{9}{11} - \frac{2}{11}$

Practice: Subtract Fractions

5. Recap: Explain how to use the bar model to help you solve this calculation.

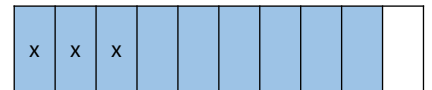


$\frac{9}{10} - \frac{4}{10}$



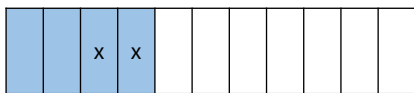
6. Use the diagram to help you calculate

$\frac{9}{10} - \frac{3}{10}$



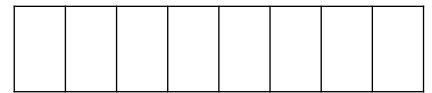
7. Use the diagram to help you calculate

$\frac{4}{11} - \frac{2}{11}$



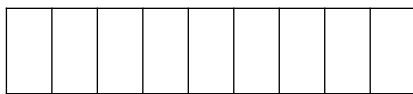
8. Use the diagram to help you calculate

$\frac{7}{8} - \frac{4}{8}$

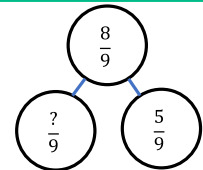


9. Use the diagram to help you calculate

$\frac{8}{9} - \frac{3}{9} - \frac{2}{9}$



10. Explain how to complete the part-whole model.



11. Complete the calculations

a. $\frac{7}{12} - \frac{6}{12}$

b. $\frac{6}{7} - \frac{2}{7}$

12. What is the missing fraction?

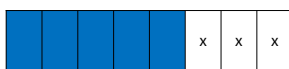
$\frac{10}{14} - \square = \frac{2}{14}$

13. Delilah is calculating $\frac{5}{8} - \frac{3}{8}$ using a bar model.



She says the answer is $\frac{5}{8}$.

Is she correct?



Challenge

14. Luca subtracts two fractions.

He says, "Both of my fractions have the same denominator. Their difference is $\frac{1}{7}$." What could his fractions be?

and



You might want to talk to an adult



Spot the mistake

Answers

Q no.	Question	Answer
1	$187 + 20$	207
2	$348 + 385$	733
3	32×5	160
4	$\frac{9}{11} - \frac{2}{11}$	$\frac{7}{11}$
5	Explain how to use the bar model to help you solve this calculation.	The bar model can be used to display the first fraction (shading 9 out of 10 parts) then subtract the second fraction by crossing off the number of shaded parts indicated (4 out of 10 parts). Some pupils will become confused with bar models as they will cross out parts that are not shaded as well as those that are shaded.
6	$\frac{9}{10} - \frac{3}{10}$	$\frac{6}{10}$
7	$\frac{4}{11} - \frac{2}{11}$	$\frac{2}{11}$
8	$\frac{7}{8} - \frac{4}{8}$	$\frac{3}{8}$
9	$\frac{8}{9} - \frac{3}{9} - \frac{2}{9}$	$\frac{3}{9}$
10	Explain how to complete the part-whole model.	The circle at the top shows the whole. The two circles coming off the whole show the parts that make the whole. To find the missing part, the pupil must subtract $\frac{5}{9}$ from $\frac{8}{9}$.
11	Complete the calculations	a. $\frac{1}{12}$ b. $\frac{4}{7}$
12	What is the missing fraction?	$\frac{8}{14}$
13	Is Delilah correct?	Delilah is incorrect, she has not crossed off the bars she has coloured in, this means she is subtracting $\frac{3}{8}$ from one whole instead of from $\frac{5}{8}$.
14	Luca subtracts two fractions. He says, "Both of my fractions have the same denominator. Their difference is $\frac{1}{7}$." What could his fractions be?	Accept any answer where the difference is $\frac{1}{7}$ Example answers $\frac{7}{7}$ and $\frac{6}{7}$ $\frac{6}{7}$ and $\frac{5}{7}$ $\frac{2}{7}$ and $\frac{1}{7}$

Arithmetic

1. $87 - 60$

2. $834 - 102$

3. 56×4

4. $\frac{2}{8} + \frac{3}{8}$

Practice: Add and Subtract – Same Denominator

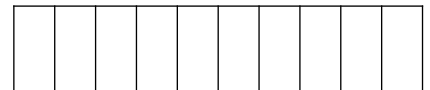
5. Recap: What do I need to add to $\frac{3}{5}$ to make a whole?



Explain your answer.

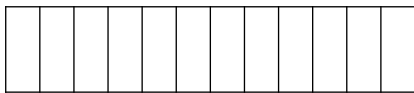
6. Use the diagram to help you calculate

$$\frac{2}{10} + \frac{7}{10} - \frac{3}{10}$$

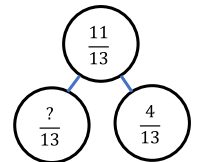


7. Use the diagram to help you calculate

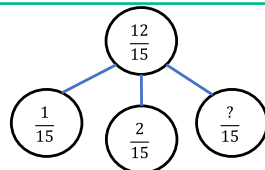
$$\frac{8}{12} - \frac{7}{12} + \frac{5}{12}$$



8. Complete the part-whole model.



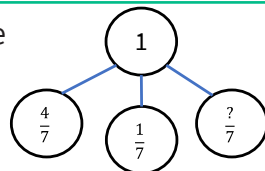
9. Complete the part-whole model.



10. Explain how you found the answer to question 9.



11. Complete the part-whole model.



12. What's the missing fraction?

$$\frac{2}{9} + \boxed{\phantom{\frac{1}{9}}} + \frac{3}{9} = 1$$

13. Saskia calculates $\frac{9}{14} + \frac{2}{14} - \frac{3}{14}$. She says the answer is $\frac{11}{14}$.



Is she correct?



Challenge

14. Complete the number sentences.

$$\begin{array}{r} \boxed{} \\ \boxed{} \end{array} - \begin{array}{r} \boxed{} \\ \boxed{} \end{array} = \begin{array}{r} \boxed{} \\ \boxed{} \end{array} + \begin{array}{r} \boxed{} \\ \boxed{} \end{array}$$

$$\begin{array}{r} \boxed{} \\ \boxed{} \end{array} + \begin{array}{r} \boxed{} \\ \boxed{} \end{array} > \begin{array}{r} \boxed{} \\ \boxed{} \end{array} - \begin{array}{r} \boxed{} \\ \boxed{} \end{array}$$



You might want to talk to an adult



Spot the mistake

Answers

Q no.	Question	Answer
1	$87 - 60$	27
2	$834 - 102$	732
3	56×4	224
4	$\frac{2}{8} + \frac{3}{8}$	$\frac{5}{8}$
5	What do I need to add to $\frac{3}{5}$ to make a whole? Explain your answer.	$\frac{2}{5}$ needs to be added to make a whole. Pupils may explain that they know that two parts need to be added to three parts to make five parts or a whole. Pupils may also include a pictorial representation to show their answer.
6	$\frac{2}{10} + \frac{7}{10} - \frac{3}{10}$	$\frac{6}{10}$
7	$\frac{8}{12} - \frac{7}{12} + \frac{5}{12}$	$\frac{6}{12}$
8	Complete the part-whole model.	$\frac{7}{13}$
9	Complete the part-whole model.	$\frac{9}{15}$
10	Explain how you found the answer to question 9.	Pupils will have a range of ways to solve this calculation. Pupils may add $\frac{1}{15}$ and $\frac{2}{15}$ first then find the difference between $\frac{12}{15}$ and $\frac{3}{15}$ or they may subtract $\frac{1}{15}$ and $\frac{2}{15}$ from $\frac{12}{15}$ and are then left with the answer.
11	Complete the part-whole model.	$\frac{2}{7}$
12	What's the missing fraction?	$\frac{4}{9}$
13	Is Saskia correct?	Saskia has only added the fractions, she has not subtracted $\frac{3}{14}$, even though she has represented this on her bar model.
14	Complete the number sentences.	Accept answers that satisfy the number sentences. Example answers: $\frac{4}{5} - \frac{1}{5} = \frac{1}{5} + \frac{2}{5}$ $\frac{1}{6} + \frac{5}{6} = \frac{2}{6} - \frac{1}{6}$