



Adding and subtracting unlike denominators

GRADE 5 MATH

Name _____

Date _____

For every question, write the range your answer must lie in before you calculate. Then check it afterwards.

WORKED EXAMPLE

Same-sized pieces first, then count. Change the top by the same factor as the bottom. Predict the range, then calculate, then compare.

1. Work out $\frac{1}{2} + \frac{1}{3}$ **FLUENCY**

Show your thinking

Answer**2.** Work out $\frac{2}{3} + \frac{1}{4}$ **FLUENCY**

Show your thinking

Answer

3. Work out $\frac{1}{4} + \frac{3}{8}$

FLUENCY

Show your thinking

Answer

4. Work out $\frac{3}{4} - \frac{1}{2}$

FLUENCY

Show your thinking

Answer

5. Work out $\frac{5}{6} - \frac{1}{3}$

FLUENCY

Show your thinking

Answer

6. Work out $\frac{7}{8} - \frac{1}{4}$

FLUENCY

Show your thinking

Answer

7. Work out $2\frac{1}{3} + 1\frac{1}{2}$

APPLICATION

Show your thinking

Answer

8. Work out $3\frac{1}{4} - 1\frac{3}{4}$

APPLICATION

Show your thinking

Answer

9. Add $\frac{1}{2}$ and $\frac{1}{3}$ using twelfths instead of sixths. Do you get the same amount? Why?

REASONING

Show your thinking

Answer

10. A child says $\frac{1}{2} + \frac{1}{3} = \frac{2}{5}$. Without adding anything, give two separate reasons this must be wrong.

REASONING

Show your thinking

Answer

11. Ravi walks $\frac{3}{4}$ mile then $\frac{2}{3}$ mile. Roughly how far, before you calculate? Then work it out exactly.

APPLICATION

Show your thinking

Answer

12. Jo has $\frac{7}{8}$ of a litre and pours away $\frac{1}{2}$ a litre. She answers $\frac{6}{6}$. Show that this is wrong, and find the right answer.

REASONING

Show your thinking

Answer

13. Why does $\frac{1}{4} + \frac{3}{8}$ need only ONE of the fractions changed, while $\frac{1}{2} + \frac{1}{3}$ needs both?

REASONING

Show your thinking

Answer

14. Why is “you cannot add pieces of different sizes” a better reason than “you have to find a common denominator”?

REASONING

Show your thinking

Answer