

Addition and Subtraction of Unlike Fractions

Unit: Fractions - Student Practice Worksheet

Overview: Anaya added $\frac{1}{2}$ and $\frac{1}{3}$ and got $\frac{2}{5}$. Two fifths is less than a half. She had added half a chocolate bar to a third of one and ended up with less than she started with.

Practice Questions (30 Total)

Section A - Easy

Q1. Same-size fifths: $\frac{1}{5}$ plus $\frac{2}{5}$. Sum?



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

- ☐ A. $\frac{3}{5}$
- ☐ B. $\frac{3}{10}$
- ☐ C. $\frac{2}{5}$
- ☐ D. $\frac{1}{2}$

Q2. Compute $\frac{2}{3} + \frac{1}{3}$

- ☐ A. $\frac{3}{6}$
- ☐ B. $\frac{2}{3}$
- ☐ C. $\frac{1}{3}$
- ☐ D. 1

Q3. Compute $\frac{3}{7} + \frac{2}{7}$

- ☐ A. $\frac{5}{14}$
- ☐ B. $\frac{5}{7}$
- ☐ C. $\frac{6}{7}$
- ☐ D. $\frac{1}{7}$

Q4. Five eighths with two maroon removed. Difference?



$5/8 - 2/8$

- ☐ A. $3/16$
- ☐ B. $7/8$
- ☐ C. $3/8$
- ☐ D. $1/4$

Q5. Compute $7/10 - 3/10$ and give the answer in simplest form.

- ☐ A. $2/5$
- ☐ B. $4/10$
- ☐ C. $4/20$
- ☐ D. $1/5$

Q6. Compute $4/9 + 3/9$

- ☐ A. $7/18$
- ☐ B. $1/9$
- ☐ C. $12/9$
- ☐ D. $7/9$

Q7. $5/12 + 1/12$ fills half the bar. Simplest form?



$6/12$ simplifies

- ☐ A. $1/2$
- ☐ B. $6/24$
- ☐ C. $6/12$
- ☐ D. $1/4$

Q8. Compute $8/15 - 3/15$ and give the answer in simplest form.

- ☐ A. $5/15$
- ☐ B. $1/3$
- ☐ C. $5/30$
- ☐ D. $1/5$

Q9. Compute $\frac{9}{11} - \frac{5}{11}$

- ☐ A. $\frac{4}{22}$
- ☐ B. $\frac{14}{11}$
- ☐ C. $\frac{4}{11}$
- ☐ D. $\frac{5}{11}$

Q10. Compute $\frac{1}{6} + \frac{4}{6}$, keeping the denominator sixths.

- ☐ A. $\frac{5}{12}$
- ☐ B. $\frac{5}{6}$
- ☐ C. $\frac{4}{6}$
- ☐ D. $\frac{1}{2}$

Section B - Medium

Q11. Half-bar plus third-bar rewritten on sixths. Sum?



$\frac{1}{2} + \frac{1}{3}$ on sixths

- ☐ A. $\frac{5}{6}$
- ☐ B. $\frac{2}{6}$
- ☐ C. $\frac{1}{6}$
- ☐ D. $\frac{2}{5}$

Q12. Compute $\frac{2}{3} + \frac{3}{4}$

- ☐ A. $\frac{5}{7}$
- ☐ B. $\frac{17}{12}$
- ☐ C. $1 \frac{1}{12}$
- ☐ D. $1 \frac{5}{12}$

Q13. Compute $\frac{3}{4} - \frac{1}{2}$

- ☐ A. $\frac{2}{2}$
- ☐ B. $\frac{1}{4}$
- ☐ C. $\frac{2}{4}$
- ☐ D. $\frac{1}{2}$

Q14. $\frac{5}{6}$ minus $\frac{1}{4}$. Difference over twelfths?

$$\frac{5}{6} \quad - \quad \frac{1}{4}$$

- ☐ A. $\frac{4}{2}$
- ☐ B. $\frac{1}{2}$
- ☐ C. $\frac{6}{12}$
- ☐ D. $\frac{7}{12}$

Q15. Compute $\frac{5}{6} - \frac{2}{9}$

- ☐ A. $\frac{3}{3}$
- ☐ B. $\frac{11}{18}$
- ☐ C. $\frac{7}{18}$
- ☐ D. $\frac{3}{15}$

Q16. Compute $\frac{2}{5} + \frac{1}{3}$

- ☐ A. $\frac{3}{8}$
- ☐ B. $\frac{1}{15}$
- ☐ C. $\frac{11}{15}$
- ☐ D. $\frac{6}{15}$

Q17. $\frac{1}{2}$ plus $\frac{2}{5}$. Sum over tenths?

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

- ☐ A. $\frac{9}{10}$
- ☐ B. $\frac{3}{7}$
- ☐ C. $\frac{3}{10}$
- ☐ D. $\frac{1}{10}$

Q18. Compute $\frac{7}{10} - \frac{1}{5}$ and give the answer in simplest form.

- ☐ A. $\frac{6}{5}$
- ☐ B. $\frac{5}{10}$
- ☐ C. $\frac{1}{2}$

☐ D. $6/10$

Q19. Compute $3/8 + 1/4$

☐ A. $4/12$

☐ B. $5/8$

☐ C. $4/8$

☐ D. $1/8$

Q20. $1/4 + 1/6$ over twelfths, naming the LCM first.

☐ A. $2/10$

☐ B. $1/12$

☐ C. $5/12$

☐ D. $2/24$

Section C - Challenge

Q21. Add $2\frac{1}{2}$ and $1\frac{1}{3}$: wholes first, then the fractions.

$$2\frac{1}{2} + 1\frac{1}{3}$$

☐ A. $3\frac{2}{5}$

☐ B. $3\frac{5}{6}$

☐ C. $3\frac{1}{6}$

☐ D. $4\frac{5}{6}$

Q22. Anaya got $2/5$ for $1/2 + 1/3$. How could she tell it was wrong without redoing it?

☐ A. $2/5$ is smaller than the $1/2$ she started with

☐ B. Because 5 is an odd number

☐ C. Because the answer should be a mixed number

☐ D. Because $2/5$ cannot be simplified

Q23. Compute $3\frac{1}{4} - 1\frac{1}{2}$

☐ A. $2\frac{1}{4}$

☐ B. $1\frac{1}{4}$

☐ C. $1\frac{3}{4}$

☐ D. $2\frac{3}{4}$

Q24. Jug $3\frac{1}{2}$ L, maroon $1\frac{3}{4}$ L poured. How much remains?



$3\frac{1}{2}$ L, pour $1\frac{3}{4}$ L

☐ A. $2\frac{1}{4}$ L

☐ B. $1\frac{1}{4}$ L

☐ C. $2\frac{3}{4}$ L

☐ D. $1\frac{3}{4}$ L

Q25. Ravi ate $\frac{1}{3}$ of a cake and Sita ate $\frac{1}{4}$. What fraction is left?

☐ A. $\frac{7}{12}$

☐ B. $\frac{1}{12}$

☐ C. $\frac{5}{12}$

☐ D. $\frac{2}{7}$

Q26. Compute $4\frac{2}{3} - 2\frac{5}{6}$

☐ A. $1\frac{5}{6}$

☐ B. $2\frac{1}{6}$

☐ C. $1\frac{1}{6}$

☐ D. $2\frac{5}{6}$

Q27. $\frac{1}{2} + \frac{1}{3} + \frac{1}{4}$ over twelfths, as a mixed number.

$$\frac{1}{2} + \frac{1}{3} + \frac{1}{4}$$

☐ A. $\frac{3}{9}$

☐ B. $\frac{13}{12}$

☐ C. $1\frac{1}{12}$

☐ D. $1\frac{5}{12}$

Q28. Compute $3 - 1\frac{2}{7}$

☐ A. $2\frac{5}{7}$

☐ B. $1 \frac{2}{7}$

☐ C. $2 \frac{2}{7}$

☐ D. $1 \frac{5}{7}$

Q29. Compute $\frac{2}{3} + \frac{3}{5} - \frac{1}{2}$

☐ A. $\frac{4}{30}$

☐ B. $\frac{23}{30}$

☐ C. $\frac{13}{30}$

☐ D. $1 \frac{1}{30}$

Q30. What must be added to $\frac{2}{5}$ to get $\frac{3}{4}$, as a single fraction.

☐ A. $\frac{1}{20}$

☐ B. $\frac{7}{20}$

☐ C. $\frac{1}{9}$

☐ D. $\frac{23}{20}$

Answer Key

Q1: (A) (a) $\frac{3}{5}$. Add the numerators only. Option (b) adds the denominators too, which changes the size of the pieces.

Q2: (D) (d) 1. Three thirds make a whole. Option (a) adds the denominators and lands on a half.

Q3: (B) (b) $\frac{5}{7}$. The pieces are already sevenths, so just count them.

Q4: (C) (c) $\frac{3}{8}$. Subtract the numerators and keep the denominator.

Q5: (A) (a) $\frac{2}{5}$. The subtraction gives $\frac{4}{10}$, which must then be simplified. Option (b) is correct but unfinished.

Q6: (D) (d) $\frac{7}{9}$. Four ninths plus three ninths is seven ninths.

Q7: (A) (a) $\frac{1}{2}$. The addition gives $\frac{6}{12}$, which simplifies. Option (c) is correct but not in simplest form.

Q8: (B) (b) $\frac{1}{3}$. The subtraction gives $\frac{5}{15}$, which simplifies by dividing both parts by 5.

Q9: (C) (c) $\frac{4}{11}$. Only the numerators change.

Q10: (B) (b) $\frac{5}{6}$. Five sixths — the same answer as $\frac{1}{2} + \frac{1}{3}$, by a much easier route.

Q11: (A) (a) $\frac{5}{6}$. Over sixths it is $\frac{3}{6} + \frac{2}{6}$. Option (d) is Anaya's mistake — and it is smaller than the half she started with.

Q12: (D) (d) $1\frac{5}{12}$. Over twelfths it is $\frac{8}{12} + \frac{9}{12} = \frac{17}{12}$. Option (b) is the same value left as an improper fraction.

Q13: (B) (b) $\frac{1}{4}$. Rewrite $\frac{1}{2}$ as $\frac{2}{4}$, then $\frac{3}{4} - \frac{2}{4}$.

Q14: (D) (d) $\frac{7}{12}$. The LCM of 6 and 4 is 12, giving $\frac{10}{12} - \frac{3}{12}$.

Q15: (B) (b) $\frac{11}{18}$. The LCM of 6 and 9 is 18, giving $\frac{15}{18} - \frac{4}{18}$.

Q16: (C) (c) $\frac{11}{15}$. Over fifteenths it is $\frac{6}{15} + \frac{5}{15}$. Option (a) adds tops and bottoms separately.

Q17: (A) (a) $\frac{9}{10}$. Over tenths it is $\frac{5}{10} + \frac{4}{10}$.

Q18: (C) (c) $\frac{1}{2}$. Rewrite $\frac{1}{5}$ as $\frac{2}{10}$, giving $\frac{5}{10}$, which then simplifies.

Q19: (B) (b) $\frac{5}{8}$. Rewrite $\frac{1}{4}$ as $\frac{2}{8}$, then add the numerators.

Q20: (C) (c) $\frac{5}{12}$. The LCM of 4 and 6 is 12, giving $\frac{3}{12} + \frac{2}{12}$.

Q21: (B) (b) $3\frac{5}{6}$. Add the wholes to get 3, then $\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$.

Q22: (A) (a) $\frac{2}{5}$ is smaller than the $\frac{1}{2}$ she started with. Adding a positive amount can never make a number smaller.

Q23: (C) (c) $1\frac{3}{4}$. As improper fractions it is $\frac{13}{4} - \frac{6}{4} = \frac{7}{4}$.

Q24: (D) (d) $1\frac{3}{4}$ L. As improper fractions it is $\frac{14}{4} - \frac{7}{4} = \frac{7}{4}$ — exactly half of what was there.

Q25: (C) (c) $\frac{5}{12}$. Together they ate $\frac{7}{12}$, so $1 - \frac{7}{12}$ remains. Option (a) is what they ate, not what is left.

Q26: (A) (a) $1\frac{5}{6}$. Convert first: $\frac{28}{6} - \frac{17}{6} = \frac{11}{6}$, which avoids any borrowing.

Q27: (C) (c) $1\frac{1}{12}$. Over twelfths it is $\frac{6}{12} + \frac{4}{12} + \frac{3}{12} = \frac{13}{12}$. Option (b) leaves it improper.

Q28: (D) (d) $1\frac{5}{7}$. Write 3 as $\frac{21}{7}$ and $1\frac{2}{7}$ as $\frac{9}{7}$, giving $\frac{12}{7}$.

Q29: (B) (b) $\frac{23}{30}$. Over thirtieths it is $\frac{20}{30} + \frac{18}{30} - \frac{15}{30}$.

Q30: (B) (b) $\frac{7}{20}$. This is $\frac{3}{4} - \frac{2}{5}$, which over twentieths is $\frac{15}{20} - \frac{8}{20}$. Option (d) adds them instead.

You've got this! Keep learning and shining! - Ruchi Math Coaching