

Year 6 Arithmetic Quiz 4

Add and Subtract Fractions.

1

$$\frac{3}{10} + \frac{1}{10} =$$

2

$$\frac{1}{8} + \frac{3}{8} =$$

3

$$\frac{7}{10} - \frac{1}{10} =$$

$$\frac{3}{8} - \frac{1}{8} =$$
$$\frac{3}{4} + \frac{5}{8} =$$
$$\frac{2}{3} + \frac{1}{2} =$$

$$\frac{7}{8} + \frac{4}{5} =$$
$$\frac{9}{10} + \frac{1}{4} =$$
$$\frac{3}{4} - \frac{1}{5} =$$
A 20x10 grid of squares. A rectangle is highlighted in the bottom right corner, spanning 10 columns and 4 rows. The rectangle is defined by a thick black border. The grid lines are thin and gray. The rectangle's top-left corner is at the intersection of the 10th vertical line and the 16th horizontal line from the top. The rectangle's bottom-right corner is at the intersection of the 20th vertical line and the 10th horizontal line from the top.

$$\frac{5}{6} - \frac{1}{2} =$$
A 20x10 grid of squares. A rectangle is drawn in the bottom right corner, spanning 5 squares horizontally and 3 squares vertically. The rectangle is outlined in black and is empty.
$$\frac{4}{9} - \frac{3}{8} =$$
A 20x10 grid of squares. A rectangle is drawn in the bottom right corner, spanning 5 squares horizontally and 3 squares vertically. The rectangle is outlined in black.
$$\frac{4}{5} - \frac{1}{2} =$$
A 20x10 grid of squares. A rectangle is highlighted in the bottom right corner, spanning 10 columns and 5 rows. The rectangle is defined by a thick black border. It occupies the area from column 11 to column 20 and row 6 to row 10.

Multiply fractions by whole numbers and fractions.

13

$$4\frac{1}{3} \times 2 =$$

14

$$6 \times 4 \frac{1}{2} =$$

15

$$5 \times 2\frac{1}{4} =$$

16

$$3\frac{2}{5} \times 2 =$$

--	--

17

$$5 \times 3 \frac{5}{6} =$$

--	--

18

$$3\frac{3}{4} \times 2 =$$

--	--

$$\frac{1}{4} \times \frac{1}{5} =$$
$$\frac{1}{5} \times \frac{1}{2} =$$
$$\frac{1}{3} \times \frac{1}{8} =$$

22

$$\frac{3}{5} \times \frac{2}{3} =$$

23

$$\frac{1}{4} \times \frac{2}{5} =$$

24

$$\frac{7}{8} \times \frac{3}{5} =$$

Divide proper fractions by whole numbers.

25

$$\frac{1}{4} \div 2 =$$

26

$$\frac{1}{5} \div 4 =$$

27

$$\frac{1}{3} \div 3 =$$

28

$$\frac{1}{6} \div 5 =$$

29

$$\frac{1}{4} \div 3 =$$

30

$$\frac{1}{3} \div 2 =$$

31

$$\frac{2}{9} \div 6 =$$

32

$$\frac{3}{4} \div 3 =$$

33

$$\frac{3}{8} \div 5 =$$

34

$$\frac{3}{10} \div 7 =$$

35

$$\frac{7}{12} \div 2 =$$

36

$$\frac{4}{5} \div 6 =$$

Year 6 Arithmetic Quiz 4: Answers

- | | |
|------------------------------------|---------------------|
| 1. $\frac{2}{5}$ or $\frac{4}{10}$ | 19. $\frac{1}{20}$ |
| 2. $\frac{1}{2}$ or $\frac{4}{8}$ | 20. $\frac{1}{10}$ |
| 3. $\frac{3}{5}$ or $\frac{6}{10}$ | 21. $\frac{1}{24}$ |
| 4. $\frac{1}{4}$ or $\frac{2}{8}$ | 22. $\frac{2}{5}$ |
| 5. $1\frac{3}{8}$ | 23. $\frac{1}{10}$ |
| 6. $1\frac{1}{6}$ | 24. $\frac{21}{40}$ |
| 7. $1\frac{27}{40}$ | 25. $\frac{1}{8}$ |
| 8. $1\frac{3}{20}$ | 26. $\frac{1}{20}$ |
| 9. $\frac{11}{20}$ | 27. $\frac{1}{9}$ |
| 10. $\frac{1}{3}$ | 28. $\frac{1}{30}$ |
| 11. $\frac{5}{72}$ | 29. $\frac{1}{12}$ |
| 12. $\frac{3}{10}$ | 30. $\frac{1}{6}$ |
| 13. $8\frac{2}{3}$ | 31. $\frac{1}{27}$ |
| 14. 27 | 32. $\frac{1}{4}$ |
| 15. $11\frac{1}{4}$ | 33. $\frac{3}{40}$ |
| 16. $6\frac{4}{5}$ | 34. $\frac{3}{70}$ |
| 17. $19\frac{1}{6}$ | 35. $\frac{7}{24}$ |
| 18. $7\frac{1}{2}$ | 36. $\frac{2}{15}$ |

Year 6 Arithmetic Quiz 4

Add and Subtract Fractions

The numerator 
The denominator 

Adding and subtracting fractions with the same denominator:

Add or subtract the numerators, the denominator remains the same.

$$\frac{2}{5} + \frac{1}{5} = \frac{3}{5} \quad \text{and} \quad \frac{4}{5} - \frac{2}{5} = \frac{2}{5}$$

Adding and subtracting fractions with denominators that are multiples:

The denominator must be the same, so find the equivalent fractions with the same denominator. This will usually be by multiplying the numerator and denominator by the same number.

$$\frac{3}{10} + \frac{2}{5} = \frac{3}{10} + \frac{4}{10} = \frac{7}{10} \quad \text{and} \quad \frac{3}{4} - \frac{3}{8} = \frac{6}{8} - \frac{3}{8} = \frac{3}{8}$$

Adding and subtracting fractions using equivalent fractions:

The denominator must be the same, so sometimes both fractions are changed to equivalent fractions with the same denominator.

$$\frac{3}{4} + \frac{1}{5} = \frac{15}{20} + \frac{4}{20} = \frac{19}{20} \quad \text{and} \quad \frac{2}{3} - \frac{1}{5} = \frac{10}{15} - \frac{3}{15} = \frac{7}{15}$$

Multiply fractions by whole numbers and fractions

Multiplying the mixed numbers by whole numbers:

Multiply the whole numbers and multiply the fraction by the whole number. When multiplying the fraction by the whole number, multiply the numerator by the whole number. The denominator stays the same.

$$2 \frac{1}{4} \times 3 = 6 \frac{3}{4} \quad \text{because} \quad 2 \times 3 = 6 \quad \text{and} \quad \frac{1}{4} \times 3 = \frac{3}{4}$$

Multiplying fractions

Multiply the numerators and multiply the denominators:

$$\frac{2}{3} \times \frac{3}{5} = \frac{6}{15}$$

Divide proper fractions by whole numbers

To divide proper fractions by whole numbers, multiply the denominator by the whole number:

$$\frac{2}{3} \div 5 = \frac{2}{15}$$