

Fractions – CM2

10 exercises · ages 10–11 · answer key on page 2

Name: Date:

1 Write in numbers: three quarters, five eighths, seven tenths.

Answer:

2 A pizza is cut into 8 equal slices. Lea eats 3. What fraction of the pizza did she eat? What fraction is left?

Answer:

3 Put in order from smallest to largest: 7/5; 2/5; 5/5; 4/5. Which ones are greater than 1?

Answer:

4 Fill in to make equal fractions: 1/2 = .../8; 3/4 = .../12; 2/5 = .../10.

Answer:

5 Write each fraction in its simplest form: 6/8; 10/15; 12/16.

Answer:

6 Work out: 2/7 + 3/7; 5/9 + 4/9; 7/10 – 3/10.

Answer:

7 Write as “a whole number + a fraction less than 1”: 7/4; 13/5.

Answer:

8 What is 3/4 of 20 stickers? And 2/5 of 35 marbles?

Answer:

9 Write as a decimal: 7/10; 45/100; 128/100.

Answer:

10 Tom is reading a book of 150 pages. On Monday he reads 2/5 of it; on Tuesday, 1/5. What fraction of the book has he read? How many pages are left?

Answer:

Answer key

1. **3/4; 5/8; 7/10**. The bottom number (the denominator) tells how many equal parts the whole is split into: quarters = 4, eighths = 8, tenths = 10.
2. **3/8 eaten; 5/8 left**. 8 slices in all, 3 taken: 3/8. 8 − 3 = 5 slices are left: 5/8.
3. **2/5 < 4/5 < 5/5 < 7/5; only 7/5 is greater than 1**. Same denominator: compare the numerators. 5/5 = 1, so 7/5 is greater than 1.
4. **4/8; 9/12; 4/10**. Multiply the top and the bottom by the same number: × 4, × 3, × 2.
5. **3/4; 2/3; 3/4**. Divide the top and the bottom by the same number: ÷ 2, ÷ 5, ÷ 4.
6. **5/7; 9/9 = 1; 4/10**. Same denominator: add (or subtract) the numerators and keep the denominator.
7. **7/4 = 1 + 3/4; 13/5 = 2 + 3/5**. 7/4 holds one 4/4 (= 1) with 3/4 left over. 13/5 holds two 5/5 (= 2) with 3/5 left over.
8. **15 stickers; 14 marbles**. Divide by the denominator, then multiply by the numerator: 20 ÷ 4 = 5, 5 × 3 = 15; 35 ÷ 5 = 7, 7 × 2 = 14.
9. **0.7; 0.45; 1.28**. Tenths: one digit after the decimal point; hundredths: two digits after the decimal point.
10. **3/5 of the book; 60 pages are left**. 2/5 + 1/5 = 3/5. One fifth is 150 ÷ 5 = 30 pages; 2/5 are left, so 2 × 30 = 60 pages.

Fractions in CM2: the 6 rules to know

1. **Reading a fraction**: the denominator, at the bottom, tells how many equal parts the whole is split into; the numerator, at the top, tells how many parts you take. 3/4 reads “three quarters”: 3 parts out of 4.
2. **Comparing**: when the denominators are the same, the largest fraction is the one with the largest numerator. A fraction is greater than 1 when its numerator is bigger than its denominator: 7/5 > 1.
3. **Finding equal fractions**: multiply, or divide, the numerator and the denominator by the same number: 1/2 = 2/4 = 4/8, and 6/8 = 3/4.
4. **Adding or subtracting**: if the denominators are the same, add (or subtract) the numerators and keep the denominator: 2/7 + 3/7 = 5/7. If they are different, make them the same first: 1/2 + 1/4 = 2/4 + 1/4 = 3/4; in France, this case mostly comes in middle school.
5. **Finding a fraction of a quantity**: divide the quantity by the denominator, then multiply by the numerator: 3/4 of 20 = (20 ÷ 4) × 3 = 15.
6. **Switching to decimals**: a decimal fraction has 10, 100 or 1,000 as its denominator: 7/10 = 0.7 and 45/100 = 0.45.