# Year 7 fractions worksheet

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Name: _____ Date: _____

**Question 1**

A pizza is cut into 8 equal slices and 3 slices are eaten. What fraction of the pizza is eaten, and what fraction is left?

Answer: _____

**Question 2**

Write 35/56 in simplest form.

Answer: _____

**Question 3**

Write 23/4 as a mixed numeral.

Answer: _____

**Question 4**

Which is larger, ⅝ or ⅗?

Answer: _____

**Question 5**

Calculate ⅔ + ¾.

Answer: _____

**Question 6**

A rope is 5 metres long. Jack cuts off 1¾ m and then cuts off another 2⅓ m. How much rope is left?

Answer: _____

**Question 7**

Calculate ¾ × ⅖.

Answer: _____

**Question 8**

Calculate ⅚ ÷ ⅔.

Answer: _____

**Question 9**

What fraction of 1 hour is 20 minutes? Give your answer in simplest form.

Answer: _____

**Question 10**

Find the missing numbers:

(a) 3/7 = ()/(35)

(b) 3/7 = (12)/()

Answer: _____

# Year 7 fractions: answers and worked solutions

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**Question 1**

**Key idea:** The denominator is the number of equal parts in the whole; the numerator is the number of parts being counted.

1. There are 8 equal parts, so the denominator is 8 2. 3 parts are eaten: ⅜ 3. 8 - 3 = 5 parts are left: ⅝

**Answer:** Eaten ⅜, left ⅝

**Question 2**

**Key idea:** Divide the numerator and denominator by their highest common factor.

1. Factors of 35: 1, 5, 7, 35. Factors of 56 include 7 (56 = 7 × 8) 2. HCF = 7 3. (35 ÷ 7)/(56 ÷ 7) = ⅝

**Answer:** ⅝

**Question 3**

**Key idea:** Divide the numerator by the denominator. The quotient is the whole number and the remainder is the new numerator.

1. 23 ÷ 4 = 5 remainder 3 2. So 23/4 = 5¾

**Answer:** 5¾

**Question 4**

**Key idea:** Write both fractions with a common denominator, then compare numerators.

1. Lowest common denominator of 8 and 5 is 40 2. ⅝ = 25/40 and ⅗ = 24/40 3. 25 > 24, so ⅝ is larger

**Answer:** ⅝

**Question 5**

**Key idea:** To add fractions with different denominators, first find a common denominator, then add the numerators.

1. Find the lowest common denominator (LCD) of 3 and 4: LCD = 12 2. Rewrite each fraction with denominator 12:\ ⅔ = 8/12, ¾ = 9/12 3. Add the numerators:\ 8/12 + 9/12 = 17/12 4. Convert to a mixed number:\ 17/12 = 15/12

**Answer:** 15/12

**Question 6**

**Key idea:** Subtract both pieces from the original length using a common denominator.

1. Write everything as improper fractions: 5 = 5/1, 1¾ = 7/4, 2⅓ = 7/3 2. Lowest common denominator is 12: 5 = 60/12, 7/4 = 21/12, 7/3 = 28/12 3. 60/12 - 21/12 - 28/12 = 11/12

**Answer:** 11/12 m of rope is left

**Question 7**

**Key idea:** Multiply the numerators together and the denominators together, then simplify.

1. Multiply the numerators: 3 × 2 = 6 2. Multiply the denominators: 4 × 5 = 20 3. Write the result: 6/20 4. Simplify by dividing numerator and denominator by the highest common factor of 2: 6/20 = 3/10

**Answer:** 3/10

**Question 8**

**Key idea:** To divide by a fraction, keep the first fraction, change the division sign to multiplication, and flip the second fraction (use its reciprocal).

1. Keep ⅚, change ÷ to ×, flip ⅔ to 3/2:\ ⅚ × 3/2 2. Simplify before multiplying: the 6 and the 3 share a common factor of 3:\ (5)/(cancel6^(,2)) × (cancel3^(,1))/(2) = 5/2 × ½ = (5 × 1)/(2 × 2) 3. Multiply numerators and denominators:\ 5/4 4. Convert to a mixed number:\ 5/4 = 1¼

**Answer:** 1¼

**Question 9**

**Key idea:** Write both amounts in the same unit, then write part over whole.

1. 1 hour = 60 minutes 2. Fraction = 20/60 3. Divide top and bottom by 20: ⅓

**Answer:** ⅓

**Question 10**

**Key idea:** Equivalent fractions are made by multiplying the numerator and denominator by the same number.

1. (a) 7 × 5 = 35, so multiply the numerator by 5 too: 3 × 5 = 15 2. (b) 3 × 4 = 12, so multiply the denominator by 4 too: 7 × 4 = 28

**Answer:** (a) 15 (b) 28