Year 7 equivalent fractions worksheet

Year 7 · 10 questions · www.tuterly.com.au

Name: _____ Date: _____

Question 1

Write 35/56 in simplest form.

Answer: _____

Question 2

Which is larger, ⅝ or ⅗?

Answer: _____

Question 3

Find the missing numbers:

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

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

Answer: _____

Question 4

Write in ascending order: ⅔, 7/12, ¾, ⅚

Answer: _____

Question 5

Which one of these fractions is not equivalent to ⅗? Write that fraction in simplest form.

12/20, 21/35, 15/24, 30/50

Answer: _____

Question 6

Write in descending order: 4/9, ½, 5/12, 7/18

Answer: _____

Question 7

Find the missing number: 4/9 = ()/(45)

Answer: _____

Question 8

Three friends are running the same course. Ava has run 7/10 of it, Ben has run ¾ and Chloe has run ⅔.

(a) Who has run the furthest?

(b) List the friends from the shortest distance run to the longest.

(c) Write a fraction that lies between Chloe's and Ava's fractions.

Answer: _____

Question 9

To write 42/56 in simplest form in one step, what is the largest number you can divide both the numerator and the denominator by?

Answer: _____

Question 10

Which is the largest of 5/7, ⅔ and 7/10?

Answer: _____

Year 7 equivalent fractions: answers and worked solutions

Year 7 · 10 questions · www.tuterly.com.au

Question 1

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 2

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 3

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

Question 4

Key idea: Ascending means smallest to largest. Use a common denominator of 12.

1. ⅔ = 8/12, 7/12, ¾ = 9/12, ⅚ = 10/12 2. Order the numerators: 7, 8, 9, 10

Answer: 7/12, ⅔, ¾, ⅚

Question 5

Key idea: Simplify each fraction fully and compare it with ⅗.

1. 12/20 = (12 ÷ 4)/(20 ÷ 4) = ⅗ 2. 21/35 = (21 ÷ 7)/(35 ÷ 7) = ⅗ 3. 15/24 = (15 ÷ 3)/(24 ÷ 3) = ⅝, which is not ⅗ 4. 30/50 = (30 ÷ 10)/(50 ÷ 10) = ⅗

Answer: 15/24, which simplifies to ⅝

Question 6

Key idea: Descending means largest to smallest. The lowest common denominator of 9, 2, 12 and 18 is 36.

1. 4/9 = 16/36, ½ = 18/36, 5/12 = 15/36, 7/18 = 14/36 2. Order the numerators from largest: 18, 16, 15, 14

Answer: ½, 4/9, 5/12, 7/18

Question 7

Key idea: Multiply the numerator and denominator by the same number.

1. 9 × 5 = 45 2. 4 × 5 = 20

Answer: 20

Question 8

Key idea: Use the lowest common denominator of 10, 4 and 3, which is 60.

1. Ava: 7/10 = 42/60; Ben: ¾ = 45/60; Chloe: ⅔ = 40/60 2. (a) 45 is the largest numerator, so Ben has run the furthest 3. (b) 40 < 42 < 45: Chloe, Ava, Ben 4. (c) Between 40/60 and 42/60 lies 41/60 (other answers are possible)

Answer: (a) Ben (b) Chloe, Ava, Ben (c) For example 41/60

Question 9

Key idea: Divide by the highest common factor.

1. Factors of 42: 1, 2, 3, 6, 7, 14, 21, 42 2. 14 is the largest of these that also divides 56 (56 = 4 × 14). 3. So 42/56 = ¾

Answer: 14

Question 10

Key idea: Write the fractions with a common denominator.

1. A common denominator is 210. 2. 5/7 = 150/210, ⅔ = 140/210, 7/10 = 147/210 3. The largest is 5/7.

Answer: 5/7