Year 8 dividing fractions worksheet

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Name: _____ Date: _____

Question 1

Find ⅔ + ¾. Give your answer as a mixed number.

Answer: _____

Question 2

Find 3½ - 1⅘.

Answer: _____

Question 3

Find 2⅔ × 1⅛.

Answer: _____

Question 4

Find 4½ ÷ 1⅕.

Answer: _____

Question 5

A biscuit recipe uses 2¼ cups of flour for one batch.

(a) How much flour is needed for 3½ batches?

(b) A bag holds 12 cups of flour. How many full batches can be made from one bag?

(c) How much flour is left over after making those batches?

Answer: _____

Question 6

Find 2⅓ + 1¾.

Answer: _____

Year 8 dividing fractions: answers and worked solutions

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Question 1

Key idea: To add fractions, first write them with a common denominator.

1. The LCD of 3 and 4 is 12 2. 8/12 + 9/12 = 17/12 3. 17/12 = 15/12

Answer: 15/12

Question 2

Key idea: Convert mixed numbers to improper fractions, then use a common denominator.

1. 3½ = 7/2 and 1⅘ = 9/5 2. 35/10 - 18/10 = 17/10 3. 17/10 = 17/10

Answer: 17/10

Question 3

Key idea: Convert to improper fractions, cancel common factors, then multiply numerators and denominators.

1. 2⅔ = 8/3 and 1⅛ = 9/8 2. 8/3 × 9/8 = 1/1 × 3/1 (cancel 8, and 9 with 3) 3. = 3

Answer: 3

Question 4

Key idea: To divide by a fraction, multiply by its reciprocal.

1. 4½ = 9/2 and 1⅕ = 6/5 2. 9/2 ÷ 6/5 = 9/2 × ⅚ = 45/12 = 15/4 3. 15/4 = 3¾

Answer: 3¾

Question 5

Key idea: Multiply to scale a recipe up; divide to find how many batches fit in the flour available.

1. (a) 2¼ × 3½ = 9/4 × 7/2 = 63/8 = 7⅞ cups 2. (b) 12 ÷ 9/4 = 12 × 4/9 = 48/9 = 5⅓, so 5 full batches 3. (c) 5 batches use 5 × 9/4 = 45/4 = 11¼ cups 4. (c) Left over: 12 - 11¼ = ¾ cup

Answer: (a) 7⅞ cups (b) 5 batches (c) ¾ cup

Question 6

Key idea: Change to improper fractions with a common denominator.

1. 2⅓ = 28/12 and 1¾ = 21/12 2. 28/12 + 21/12 = 49/12 = 41/12

Answer: 41/12