

APPEALING PUZZLE

Reduce each fraction. Find your answer in the CODE BOX and write the corresponding letter in the blank above the problem number. The first one is done for you.

What is the difference between a $\frac{29}{36}$ and a $\frac{3}{15}$ **E** $\frac{22}{34}$? **One** $\frac{6}{19}$ from the $\frac{12}{30}$ $\frac{27}{17}$ $\frac{23}{2}$ $\frac{26}{35}$ $\frac{4}{8}$ from the $\frac{24}{14}$ $\frac{33}{28}$ $\frac{5}{13}$ $\frac{31}{38}$ $\frac{18}{9}$ $\frac{16}{32}$ $\frac{10}{21}$, the other $\frac{39}{7}$ $\frac{37}{25}$ $\frac{11}{20}$ from the

CODE BOX	
$\frac{1}{6}$	E
$\frac{1}{5}$	I
$\frac{1}{4}$	P
$\frac{1}{3}$	S
$\frac{3}{8}$	C
$\frac{2}{5}$	L
$\frac{4}{9}$	U
$\frac{1}{2}$	E
$\frac{4}{7}$	T
$\frac{3}{5}$	E
$\frac{5}{8}$	F
$\frac{2}{3}$	H
$\frac{7}{10}$	B
$\frac{5}{7}$	T
$\frac{3}{4}$	L
$\frac{4}{5}$	R
$\frac{5}{6}$	A
$\frac{6}{7}$	M
$\frac{7}{8}$	O

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|--------------------------------|-----------------------|-----------------------|
| 1) $\frac{2}{4} = \frac{1}{2}$ | 14) $\frac{5}{15} =$ | 27) $\frac{4}{6} =$ |
| 2) $\frac{10}{12} =$ | 15) $\frac{12}{18} =$ | 28) $\frac{4}{16} =$ |
| 3) $\frac{6}{9} =$ | 16) $\frac{6}{15} =$ | 29) $\frac{9}{24} =$ |
| 4) $\frac{6}{8} =$ | 17) $\frac{4}{8} =$ | 30) $\frac{2}{8} =$ |
| 5) $\frac{2}{12} =$ | 18) $\frac{3}{12} =$ | 31) $\frac{4}{24} =$ |
| 6) $\frac{8}{10} =$ | 19) $\frac{15}{24} =$ | 32) $\frac{4}{10} =$ |
| 7) $\frac{12}{21} =$ | 20) $\frac{4}{12} =$ | 33) $\frac{10}{14} =$ |
| 8) $\frac{3}{9} =$ | 21) $\frac{4}{15} =$ | 34) $\frac{5}{25} =$ |
| 9) $\frac{5}{20} =$ | 22) $\frac{8}{18} =$ | 35) $\frac{18}{24} =$ |
| 10) $\frac{6}{12} =$ | 23) $\frac{14}{20} =$ | 36) $\frac{8}{14} =$ |
| 11) $\frac{8}{20} =$ | 24) $\frac{12}{16} =$ | 37) $\frac{3}{6} =$ |
| 12) $\frac{6}{16} =$ | 25) $\frac{15}{18} =$ | 38) $\frac{14}{16} =$ |
| 13) $\frac{6}{10} =$ | 26) $\frac{7}{14} =$ | 39) $\frac{2}{6} =$ |

<u>PAGE</u>	<u>TITLE</u>	<u>DESCRIPTION</u>
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ADDITION & SUBTRACTION WITH UNLIKE DENOMINATORS

18	LILY'S PAD (shading puzzle)	Find the least common multiple (LCM) for two numbers from 2 to 16.
19	GETTING AHEAD (draw-a-picture puzzle)	Given two fractions with unlike denominators, rewrite as equivalent fractions with the least common denominator.
20	HEFTY SWINGER (matching message puzzle)	Add two fractions with unlike denominators; no regrouping.
21-22	A BIG SCOOP (dot-to-dot puzzle)	Add two or three fractions with unlike denominators; many require regrouping.
23-24	PLANE PAIN (message puzzle)	Add two mixed numbers or a fraction and a mixed number; unlike denominators; regrouping.
25	WHAT A SIGHT! (matching message puzzle)	Subtract fractions with unlike denominators.
26-27	CHECK THIS OUT, MATE (draw-a-picture puzzle)	Subtract two mixed numbers, or a fraction from a mixed number; unlike denominators; no regrouping.
28-29	WESTERN WATERS (shading puzzle)	Subtract mixed numbers and fractions; unlike denominators; regrouping.
30	SHORT STORY (message puzzle)	Add or subtract two fractions with unlike denominators; some regrouping in addition problems.
31-32	WHERE'S YOUR MATE? (shading puzzle)	Add or subtract mixed numbers and fractions; unlike denominators; regrouping.
33-34	DON'T GET BURNED! (message puzzle)	Solve word problems involving addition or subtraction with unlike denominators.
35-36	GRAND FINALE (dot-to-dot puzzle)	Review of the entire book: add or subtract; like and unlike denominators.

ADDING & SUBTRACTING FRACTIONS

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<u>PAGE</u>	<u>TITLE</u>	<u>DESCRIPTION</u>
<u>SIMPLIFYING FRACTIONAL ANSWERS</u>		
1	APPEALING PUZZLE (message puzzle)	Reduce proper fractions to lowest terms.
2	GEE, A STAFF! (dot-to-dot puzzle)	Rewrite improper fractions as mixed or whole numbers; simplify improper mixed numbers, for example, $2\frac{8}{7} = 3\frac{1}{7}$
3	RUSSIAN RESIDENCE (shading puzzle)	Review; decide which fractions or mixed numbers have been correctly simplified.
<u>ADDITION & SUBTRACTION WITH LIKE DENOMINATORS</u>		
4	RIDICULOUS RULE (matching message puzzle)	Add two or three fractions; some sums greater than 1; some reducing.
5-6	WHAT'S BUGGING YOU? (draw-a-picture puzzle)	Add two mixed numbers, a mixed number and a whole number, or a mixed number and a fraction; some reducing; no regrouping.
7-8	PRACTICAL FASHION (message puzzle)	Add two or three mixed numbers or mixed numbers and fractions; reducing and regrouping usually required.
9	DIET DELIGHT (matching message puzzle)	Subtract fractions, mixed numbers, or a whole number from a mixed number; no regrouping.
10	CHURNING THE BUTTER (message puzzle)	Rewrite a whole or mixed number as an improper fraction (prerequisite to subtraction with regrouping).
11-12	HOT PURSUIT (shading puzzle)	Subtract mixed numbers and fractions involving regrouping; some reducing.
13	DIET SANDWICH (matching message puzzle)	Subtract a fraction or mixed number from a whole number.
14-15	DIVIDED MESSAGE (dot-to-dot puzzle)	Add or subtract fractions and/or mixed numbers; reducing; regrouping usually required.
16-17	SEVENTH HEAVEN (message puzzle)	Solve word problems involving addition or subtraction.