

Table of contents

Introducing fractions

- Where in the world? 1
- The case of the numerator and denominator 2

Finding multiples and lowest common multiples of composite numbers

- What happens to a thief if he falls into a cement mixer? (He becomes a hardened criminal) . . 3

Finding common and highest common factors of composite numbers

- Factors 4
- What does the invisible man drink at snack time? (Evaporated milk) 5
- Who are the slowest talkers in the whole world? (Convicts – they spend 25 years on a single sentence) . . 6

Locating primes, composites and prime factors

- Sieve of Eratosthenes 7
- Prime search 8
- Prime or composite? 9
- Factor trees 10
- Factor trees 11
- Prime factorisation 12

Putting it all together: (Multiples, factors, primes, composites and prime factors)

- Using the slide 13
- Antics. 14

Finding equivalent fractions

- Chocolate delight 15
- Why didn't the skeleton cross the road? (Because it didn't have any guts) 16
- What does a worm do in a corn field? (It goes in one ear and out the other) 17

Simplifying fractions (Reducing fractions to lowest terms)

- Why did Humpty Dumpty have a great fall? (To make up for his miserable summer) 18
- What did Mrs Claus say to her husband during the rainstorm? (Come and look at the reindeer) . . 19

Converting mixed numerals and improper fractions

- Ghoulish definitions 20
- Daffy definitions 21
- Phobias! Phobias! Phobias! 22

Comparing fractions	
How many months have 28 days? (All of the months do)	23
Adding and subtracting like fractions	
What happens when the frog's car breaks down? (He gets toad away)	24
Why did the astronaut take a shovel into space? (To dig a black hole).	25
Adding and subtracting unlike fractions	
Why is six afraid of seven? (Because seven ate nine)	26
Why did the Cyclops have to close his school? (Because he had only one pupil)	27
What's the only thing to eat on a deserted island? (Only the sand which is there)	28
Adding mixed numerals with no regrouping	
What is the nationality of Santa Claus? (He is North Polish)	29
Adding and subtracting mixed numerals with regrouping	
Where is the only place in the world an elephant can visit the dentist? (Tuscaloosa, Alabama)	30
What's grey, heavy and sends people to sleep? (A hypnopotamus)	31
How do Martian cowboys greet each other? (With communication saddlelights)	32
What did one magnet say to the other magnet? (I find you very attractive).	33
Solving word problems with adding and subtracting fractions	
What does an elf do after school? (Gnomework).	34
What do you get when you cross an Arabian ruler and a cow? (A milksheik)	35
Multiplying fractions with <u>OF</u>	
What did the sales assistant say when he was caught stealing? (I thought the change would do me good).	36
Multiplying simple fractions	
Tickle your funny bone	37
Mathosaurus: Who am I?.	38
Multiplying mixed numerals	
Maths bingo	39
What's a lazy rooster? (A cock-a-doodle don't)	40
Dividing Simple Fractions	
Why did the spy pull the sheets over his head? (He was an undercover agent)	41
Why is baseball like a pancake? (Because its success depends on the batter)	42

Why was the Egyptian girl worried? (Because her daddy was a mummy)	43
What's beautiful, grey and wears glass slippers? (Cinderelphant)	44

Dividing mixed numerals

Why is Dracula a great artist? (He can draw blood)	45
Trivia: Who am I?	46

Adding, subtracting, multiplying and dividing mixed numerals

Why was William Shakespeare able to write so well? (Where there's a Will, there's a way) . .	47
--	----

Solving word problems with adding, subtracting, multiplying and dividing fractions

What kind of music do ghosts like? (Spiritual music)	48
Mathosaurus: Who am I?	49

Using measurements: metres, grams, years and time zones

Measurement scavenger hunt	50
Measuring: Making the right choice.	51
Which weighs more, a tonne of feathers or a tonne of lead? (They both weigh the same)	52
When is music like an icy footpath? (When you will B flat if you don't C sharp)	53
Why does lightning shock people? (It doesn't know how to conduct itself.)	54
Measuring skill test	55
Dozens, dozens, dozens	56
What insects were common in the time of King Arthur's court? (Gnats of the Round Table) . .	57
Why is your nose in the middle of your face? (Because it's the scenter)	58
When do old clocks die? (When their time is up)	59

Using ratios, rates and proportions

Which is more correct to say, $8 + 4$ is 11 or $8 + 4$ are 11? (Neither, 8 plus 4 is 12) .	60
Ratio survey.	61
Why doesn't Sweden export cattle? (She wants to keep her Stockholm)	62
Why didn't the skeleton kid want to go to school? (His heart was not in it)	63

Exploring probability

Marbles and probability	64
Coin toss	65
What are the odds?	66–67
Rock, Paper, Scissors	68

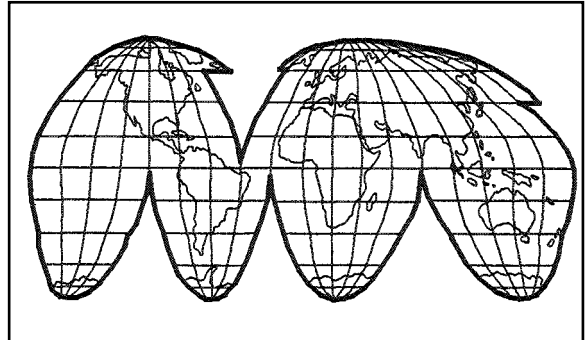
Brain challengers: Fractions, ratios and probability

Domino fractions 70
Domino fractions II 71
Combining fractions 72
Number maze 73
Number maze II 74
Photo album 75
Fraction letter code 76
Fraction letter code II 77
Fractional parts 78
Fraction box 79
Fraction box II 80
Birthday party 81
Symbol fractions 82
Matching ratios to form proportions 83
Using ratios to save money 84
52-card probability 85

Answers 86–91

Where in the world?

Directions: Think of many, varied and unusual places or ways that fractions are used in our world other than in your maths book. Try to think of at least 12.



- | | |
|----------|-----------|
| 1. _____ | 9. _____ |
| 2. _____ | 10. _____ |
| 3. _____ | 11. _____ |
| 4. _____ | 12. _____ |
| 5. _____ | 13. _____ |
| 6. _____ | 14. _____ |
| 7. _____ | 15. _____ |
| 8. _____ | 16. _____ |

Extension activity: Divide a sheet of paper into quarters. Choose four different ways fractions are used in our world and illustrate them. Write a phrase to explain each picture. You may want to add colour to your illustrations.