

Table of contents

Determining order in whole numbers

- To whom do little pigs write? (Their pen pals) 1
- What did Mummy Corn say to Baby Corn when asked, 'Mummy, where did I come from?' (The stalk brought you). 2

Rounding to the nearest whole number

- What would you eat to win a race? (You would eat fast food) 3

Writing standard numerals

- What did the homesick lizard say to his new friends? (Iguana go home) 4

Finding the correlation between maths and the real world

- Exploring maths in the 'real' world 5
- Searching for numbers in the 'real' world 6
- Numbers in nature 6

Adding whole numbers

- What did the beaver say to the tree? (It's been nice gnawing you) 7
- What keys don't open doors? (Turkeys, monkeys and donkeys) 8

Subtracting whole numbers

- What's the difference between someone who's been sick too long and a pulled tooth? (One is too thin and the other is tooth out) 9
- What does a tuba call his grandfather? (Ooohm papa) 10
- Target practice 11
- If you had 10 oranges in one hand and 6 oranges in the other, what would you have? (Awfully big hands) 12
- What's another name for a cat burglar? (A purr-snatcher) 13

Correlating maths with daily experiences

- Richer or poorer? 14
- Travels of Flat Stanley 15–16

Ideas for maths journal starters

- 25 maths journal starters 17

Multiplying whole numbers

- Beat the timer 18

Astounding nines	19
Jumbled number facts	20
Multiplication magic squares	21
Multiplication games	22–24
What do you find twice in every-day, four times in every week and once in a year? (You find the letter 'e')	25
What do baby birds eat for dessert? (Chocolate chirp cookies)	26
Why do frogs have it made? (They eat what bugs them)	27
Multiplication made easy using the lattice method	28

Dividing whole numbers

If you cross Bambi with a ghost, what would you have? (You'd have bamboo)	29
What's the definition of a flood? (A river that's too big for its bridges)	30
How far do cows go through school? (Through cow-ledge).	31
What do you call a dark horse? (A nightmare)	32

Using a calculator for mixed whole number practice

Magic potions	33
-------------------------	----

Problem-solving checklist and word problems involving whole numbers

Problem-solving checklist	34
Why did dracula go to the orthodontist? (To improve his bite)	35

Factors, composites and primes

Rocket boosters	36
Prime or composite?	37
Prime factor bubble magic	38

Fraction manipulatives and games

Making fraction kits	39
Let the games begin!!	40

Fraction skill activities

How is life like a shower? (One wrong turn and you're in hot water)	41
What do bakers use as the main ingredient in dog biscuits? (They use collie-flour)	42
What's a band director's favourite day of the year? (It's March fourth)	43
What's the definition of an igloo? (An icicle built for two)	44
What did the Martians say when they landed on Earth by mistake? (Sorry, we didn't planet this way)	45

What's the first thing you do in the morning? (You wake up)	46
What did the man say when he became the father of triplets? (I can't believe my census)	47
And the winner is	48

Connecting English with fractions

A fraction dictionary	49
---------------------------------	----

Decimal skill activities

What should you do if your dog starts to chew up your dictionary? (Take the words right out of his mouth)	50
What do you call a cow eating grass? (A lawn moo-er)	51
Cross number puzzle	52
What happens when you put snakes on a car window? (You get windscreen vipers) . .	53
A trick for adding and subtracting decimals	54
Decimal bingo	55
What's the title of this picture? (A turtle on a skateboard)	56
What did one escalator say to the other escalator? (I think I am coming down with something)	57
What happened to the dog when he ate only garlic and onions? (His bark was worse than his bite)	58

Thinking activities using decimals

Let's play Jeopardy!	59
--------------------------------	----

Solving proportions and ratios

What did one calendar say to the other calendar? (I have more dates than you do) . . .	60
--	----

Using percentages

Where do geologists go for entertainment? (To rock concerts)	61
Who couldn't get their aeroplane to fly? (The Wrong Brothers)	62
How does St Peter greet you as you approach the gates? (Well, halo there)	63

Using logic

Movin' on!	64
----------------------	----

Measuring activities

Student recording sheet	65
Decisions, decisions, decisions	66
What is the title of this picture? (A chicken on one crutch)	67

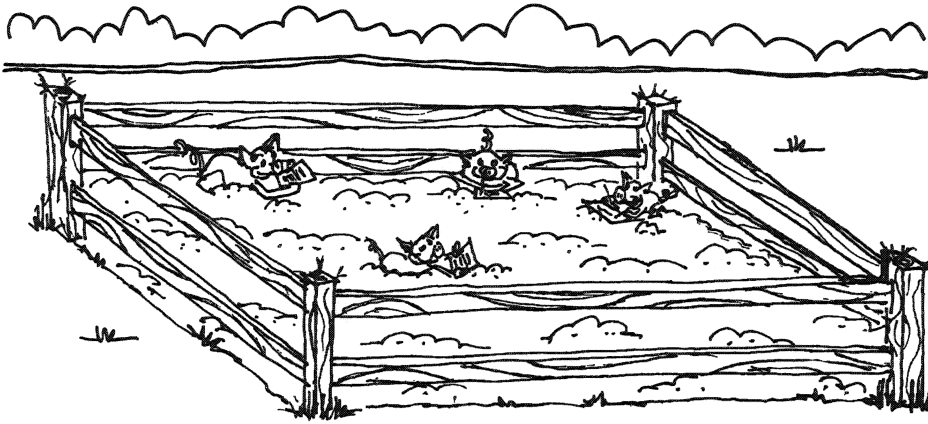
Geometry activities

Designing with area 68
Where’s the best place to see a man-eating fish? (At a seafood restaurant) 69
A geometry scavenger hunt 70
What did the doctor prescribe for the bald rabbit? (Hare tonic) 71
What did the digital watch say to its mother? (Look, ma, no hands) 72

Appendix – charts, grids and whole number facts speed tests 73

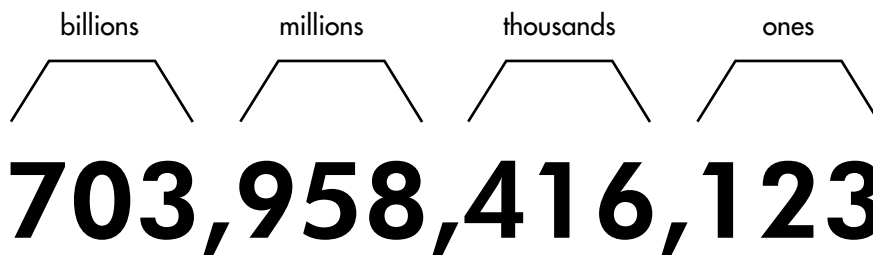
Multiplication facts 74
A table of factors 75
Grids 76–77
Whole number speed tests 78–81

Answers 82–84



To whom do little pigs write?

Directions: Solve each problem and locate your answer in the decoder at the bottom of the page. Each time your answer appears in the decoder, write the letter of the problem above it.



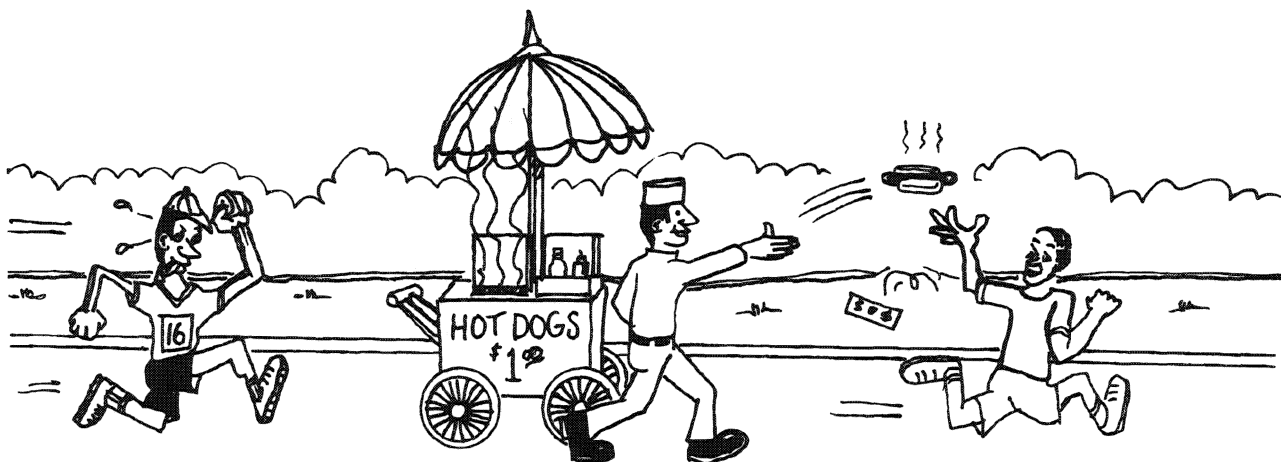
Name the number in the:

1. Tens place = _____ N
2. Hundred thousands place = _____ I
3. Billions place = _____ A
4. Thousands place = _____ E
5. Hundred millions place = _____ L
6. Ten thousands place = _____ R
7. Millions place = _____ H
8. Ten billions place = _____ S
9. Hundred billions place = _____ T
10. Ten millions place = _____ P

7
8
6
4
1
5
6
2
5
3
9
0

What would you eat to win a race?

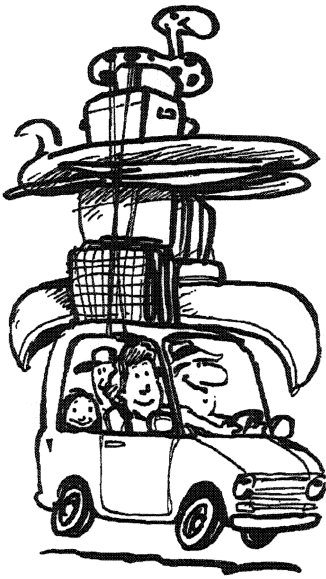
Directions: First, round each of the numbers in the problems below. Second, find your answer in the decoder at the bottom of the page. Third, each time your answer appears in the decoder, write the letter of the problem above it.



1. Round 75,420 to the nearest ten thousand = _____ A
2. Round 75,420 to the nearest hundred = _____ Y
3. Round 75,420 to the nearest thousand = _____ D
4. Round 75,420 to the nearest ten = _____ L
5. Round 293,678,432 to the nearest ten = _____ T
6. Round 293,678,432 to the nearest hundred = _____ W
7. Round 293,678,432 to the nearest ten thousand = _____ F
8. Round 293,678,432 to the nearest thousand = _____ E
9. Round 293,678,432 to the nearest hundred thousand = _____ O
10. Round 293,678,432 to the nearest ten million = _____ S
11. Round 293,678,432 to the nearest million = _____ U

75,400	293,700,000	294,000,000	293,678,400	293,700,000	294,000,000	75,420	75,000
293,678,000	80,000	293,678,430	293,680,000	80,000	290,000,000	293,678,430	
		293,680,000	293,700,000	293,700,000	75,000		

Exploring maths in the 'real' world



Background Information: By relating maths concepts to the real world, students can have a 'hook' by which to internalise maths concepts. Also, students have a reason for learning about numbers, fractions, percentages, measurement etc. if they can see a connection to real-life situations or objects.

When introducing concepts such as measurement, ask students to think of the many, varied, and unusual places measurements can be found in the 'real' world. Make a classroom chart and leave it up while studying measurement.

A sample list from one classroom included the following:

1. weight of sports equipment
2. football statistics – 50 metre penalty
3. rain gauge
4. weighing food
5. jewellery sizes
6. measuring utensils
7. road signs
8. nutrient listings on food boxes
9. car speedometer
10. airport signs
11. dividing food
12. shutter release on a camera
13. division of seats at a stadium
14. greengrocer shop
15. pen sizes – 3 mm point
16. ingredients in kitty litter
17. height limits for rides at a fair
18. science lab equipment
19. scales on a map
20. military artillery
21. art supplies
22. microscopes
23. fabric measurements
24. thickness of pizza
25. rulers
26. menus
27. bakeries
28. cartoons
29. tyre pressures
30. light years in space
31. chef shows on TV
32. movie footage
33. voltage of batteries
34. medicine prescriptions
35. test papers
36. glasses' sizes
37. braces' sizes
38. sizes of clothes
39. computer games
40. billboards

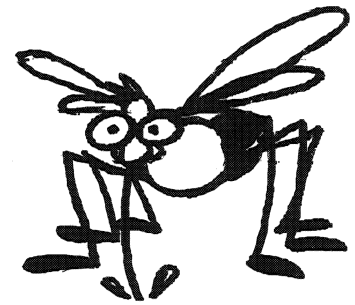
This activity took approximately 30 minutes. Each student then illustrated 4 of their favourites. This introductory lesson is also very effective when introducing decimals, percentages, fractions, geometry and other maths.

Searching for numbers in the 'real' world

Directions: Think of the many, varied and unusual places that numbers can be found in our daily lives. Try to think of at least 10. The first one has been done for you.

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

Numbers in nature



Materials: Plastic bag, pencil, clipboard, coloured pencils or crayons

Directions: Take a nature walk around your school with members of your class. While on your walk, look for examples of numbers in nature. For example, a seed cracked in half could indicate the number two. A four-leafed clover could indicate the number four. A tree branch with nine twigs could indicate the number nine and a mosquito's legs could indicate the number six. Whenever possible, collect samples on your finds, or if it is not practical to actually collect the 'real' thing, make a drawing on this recording sheet. You'll probably be amazed at how many representations of numbers you can find all around you.

Use this space to sketch some of the natural things you located. Be sure to indicate what you have drawn and the numbers that your drawings represent.

What did the beaver say to the tree?

Directions: Examine the method used in completing an addition problem. Look at the example given on the right. You might want to think of this method as 'stack addition' since you are stacking the numbers before you actually add.

$$\begin{array}{r} 43 \\ + 38 \\ \hline 11 \text{ (3 + 8)} \\ + 70 \text{ (40 + 30)} \\ \hline 81 \end{array}$$

Solve each of the problems below and then find your answer in the decoder. Each time the answer occurs in the decoder, write the letter of the problem above it.

1.
$$\begin{array}{r} 34 \\ +76 \\ \hline \end{array}$$

= A

2.
$$\begin{array}{r} 564 \\ +318 \\ \hline \end{array}$$

= W

3.
$$\begin{array}{r} 57 \\ +98 \\ \hline \end{array}$$

= U

4.
$$\begin{array}{r} 45 \\ +45 \\ \hline \end{array}$$

= T

5.
$$\begin{array}{r} 146 \\ +285 \\ \hline \end{array}$$

= I

6.
$$\begin{array}{r} 29 \\ +37 \\ \hline \end{array}$$

= N

7.
$$\begin{array}{r} 347 \\ +163 \\ \hline \end{array}$$

= B

8.
$$\begin{array}{r} 892 \\ + 60 \\ \hline \end{array}$$

= S

9.
$$\begin{array}{r} 83 \\ +65 \\ \hline \end{array}$$

= Y

10.
$$\begin{array}{r} 83 \\ +71 \\ \hline \end{array}$$

= C

11.
$$\begin{array}{r} 48 \\ +95 \\ \hline \end{array}$$

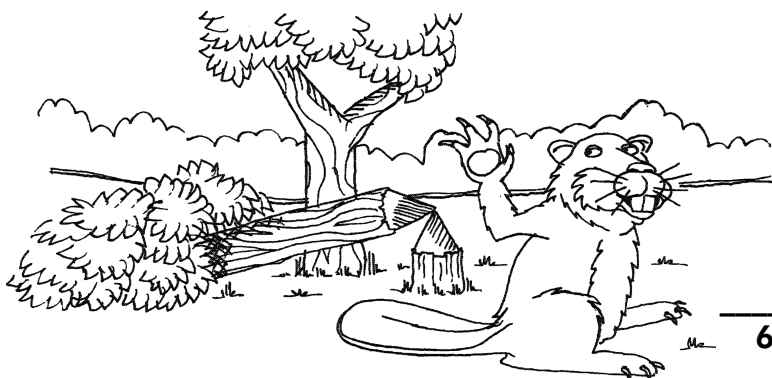
= G

12.
$$\begin{array}{r} 485 \\ + 63 \\ \hline \end{array}$$

= O

13.
$$\begin{array}{r} 92 \\ +39 \\ \hline \end{array}$$

= E



$\begin{array}{r} 431 \\ \hline \end{array}$	$\begin{array}{r} 90 \\ \hline \end{array}$	$\begin{array}{r} 952 \\ \hline \end{array}$	
$\begin{array}{r} 510 \\ \hline \end{array}$	$\begin{array}{r} 131 \\ \hline \end{array}$	$\begin{array}{r} 131 \\ \hline \end{array}$	$\begin{array}{r} 66 \\ \hline \end{array}$
$\begin{array}{r} 66 \\ \hline \end{array}$	$\begin{array}{r} 431 \\ \hline \end{array}$	$\begin{array}{r} 154 \\ \hline \end{array}$	$\begin{array}{r} 131 \\ \hline \end{array}$

- | | | | | | | | | | |
|--|---|--|--|--|---|--|--|--|--|
| $\begin{array}{r} 143 \\ \hline \end{array}$ | $\begin{array}{r} 66 \\ \hline \end{array}$ | $\begin{array}{r} 110 \\ \hline \end{array}$ | $\begin{array}{r} 882 \\ \hline \end{array}$ | $\begin{array}{r} 431 \\ \hline \end{array}$ | $\begin{array}{r} 66 \\ \hline \end{array}$ | $\begin{array}{r} 143 \\ \hline \end{array}$ | $\begin{array}{r} 148 \\ \hline \end{array}$ | $\begin{array}{r} 548 \\ \hline \end{array}$ | $\begin{array}{r} 155 \\ \hline \end{array}$ |
|--|---|--|--|--|---|--|--|--|--|