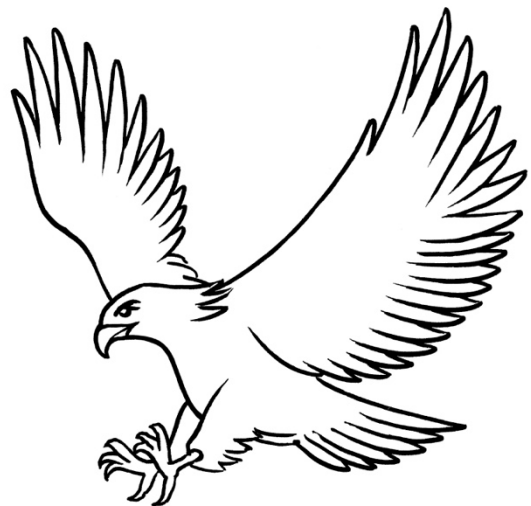




Multiplication

(* Including \div , + and -)

Basic Drills
and
Powers of 10



CONTENTS

Pages

1 Introduction

A guide to the purpose of the separate sections within the book and how to best utilise each resource.

2 - 8 Multiplication Tables and Patterns

These pages enable students to recall the multiplication tables. There are number charts, times tables and opportunities to review patterns within the charts and tables.

9 - 10 Division - Using the Multiplication Chart

The multiplication chart is provided to connect the multiplication and division operations.

11 - 12 Multiplication and Division Review

A series of mixed questions and tables to be completed based on the properties covered in the previous two sections.

13 - 28 Five Becomes Ten

A series of number puzzles where students must use five numbers to create questions which result in the ten given numbers. These puzzles increase in difficulty from easy to challenging.

29 - 46 Powers of Ten Using Multiplication and Division

Students work through series of exercises which investigate what occurs when multiplying numbers by powers of ten, multiples of powers of ten, then repeating the process with division. The activities include whole numbers and decimals.

47 - 59 Quick Quizzes

Sets of questions based on whole numbers, and multiples of powers of ten. The sets increase in difficulty level and include problems in a word context.

60 Quiz Sheet

A sheet suitable for photocopying for sets of ten questions in class.

61 - 82 Solutions

Multiplication Tables and Patterns

Six Times Table

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Six Times Tables

1	X	6	=	6
2	X	6	=	12
3	X	6	=	18
4	X	6	=	24
5	X	6	=	30
6	X	6	=	36
7	X	6	=	42
8	X	6	=	48
9	X	6	=	54
10	X	6	=	60
11	X	6	=	66
12	X	6	=	72

What do you notice??

The answers in the six times table

- follow a pattern where the last digit repeats as follows : 6, 2, 8, 4, 0, 6 etc.
- are all even.
- have 1 row in the multiplication table with 1 multiple of six, then 2 rows with 2 multiples of 6. This repeats down the table.

Multiplying by Multiples of Powers of Ten

1*. Complete the following multiplications.

Set A	
4×20	
3×30	
2×40	
5×30	
6×40	
8×20	

Set B	
9×200	
5×400	
7×300	
2×800	
3×600	
4×300	

Set C	
30×200	
$80 \times 3\,000$	
70×400	
$4 \times 2\,000$	
500×7	
80×500	

2. Comment on what you notice with the solutions in Question 1 compared to the numbers in each of the products in :

(a) Set A

(b) Set B

(c) Set C

Scanning the QR code on the right will direct you to a video which gives some examples of the type which follow in the next exercise.



3. Complete the following multiplications.

(a) 40×30

(b) 80×60

(c) 60×700

(d) 400×80

(e) 30×400

(f) $6 \times 9\,000$

(g) 12×500

(h) 30×800

(i) $2\,000 \times 50$

(j) 600×700

(k) 40×900

(l) $11 \times 3\,000$

Multiplying and Dividing Numbers in Decimal Form by Powers of Ten

1*. Complete the following multiplications.

Set A	
7.23×10	
3.11×10	
8.68×10	
0.35×10	
6.9×10	
2.4×10	

Set B	
4.553×100	
5.121×100	
8.301×100	
2.445×100	
8.13×100	
9.22×100	

Set C	
$9.114 \times 1\,000$	
$4.345 \times 1\,000$	
$2.771 \times 1\,000$	
$0.545 \times 1\,000$	
$9.312 \times 1\,000$	
$19.134 \times 1\,000$	

2. Comment on what you notice with the solutions in Question 1 compared to the numbers on the left side of each product in :

(a) Set A

(b) Set B

(c) Set C

Scanning the QR code on the right will direct you to a video which gives some examples of the type which follow in the next exercise.



3. Complete the following multiplications.

(a) 3.445×10

(b) 7.893×100

(c) 6.884×100

(d) 5.83×10

(e) $5.677 \times 1\,000$

(f) $2.933\,844 \times 10\,000$

(g) 2.33×10

(h) 5.442×100

(i) $0.188 \times 1\,000$

(j) $6.677 \times 1\,000$

(k) 5.264×100

(l) 7.09×10

Quick Quiz 4s

Set A	Set B	Set C	Set D
4×3	40×4	400×70	4×71
5×4	70×4	30×40	98×4
4×7	$400 \div 10$	$4\,000 \times 20$	$128 \div 4$
4×10	40×8	$3\,600 \div 40$	76×4
$48 \div 4$	$160 \div 4$	40×500	102×40
$16 \div 4$	$2\,000 \times 4$	$44\,000 \div 110$	$484 \div 4$
4×11	$4\,800 \div 4$	$4\,000 \div 40$	602×4
$4 \div 2$	400×6	800×400	88×4
$32 \div 4$	9×40	$1\,100 \times 40$	997×4
0×4	$1\,200 \div 4$	$80\,000 \div 400$	$48\,000 \div 40$

No.	Question	Answer
1	Write down the next three numbers in this pattern. 23, 19, 15, ...	
2	What is $4 \times 4 + 3 \times 4$	
3	What is the time if it is 400 minutes after midday?	
4	How much change would you get from \$40 if you spent \$4.80?	
5	Which shape has the greater perimeter : A square with a side length of 14 cm, or a rectangle that measures 8 cm by 21 cm?	
6	What change do you get from \$4 if you buy 4 items at 40 cents each?	
7	Which is greater 33×4 or 133?	
8	If you count backwards from 50 in fours, what is the first number below 20?	
9	What is $4 \times 4 \times 4$?	
10	What is $4 - 0.4 - 0.004$?	

