



Keep-uppI Maths Workout



Year 3 - Pack 2 **Answers**



KPIs for Term 2

Add numbers with up to 3-digits mentally

Subtract numbers with up to 3-digits mentally

Know and use multiplication facts for 3, 4 and 8 multiplication tables

Know and use division facts for 3, 4 and 8 multiplication tables



Multiplication Facts Workout

$4 \times 6 = 24$	$6 \times 8 = 48$	$52 = 4 \times 13$	$72 = 4 \times 18$
$3 \times 9 = 27$	$3 \times 8 = 24$	$136 = 17 \times 8$	$152 = 19 \times 8$
$8 \times 4 = 32$	$8 \times 9 = 72$	$54 = 3 \times 18$	$51 = 3 \times 17$
$4 \times 9 = 36$	$4 \times 12 = 48$	$39 = 13 \times 3$	$120 = 15 \times 8$

Division Workout

$36 \div 4 = 9$	$56 \div 8 = 7$	$20 = 80 \div 4$	$14 = 112 \div 8$
$24 \div 4 = 6$	$24 \div 8 = 3$	$19 = 76 \div 4$	$15 = 120 \div 8$
$48 \div 4 = 12$	$32 \div 8 = 4$	$16 = 64 \div 4$	$17 = 136 \div 8$
$32 \div 4 = 8$	$72 \div 8 = 9$	$13 = 52 \div 4$	$18 = 144 \div 8$

Addition and Subtraction Workout

Use mental strategies and jottings to calculate:

$438 + 99 = 537$	$656 - 90 = 566$	$478 + 199 = 677$
$356 = 436 - 80$	$989 = 686 + 303$	$7 = 404 - 397$
$59 + 636 = 695$	$904 - 888 = 16$	$286 + 620 = 906$



Division Choice Game

Workout D

You need:

100 Board (on the next page.)

1-6 dice

A counter for each player

To play:

Take turns to throw the dice and move along the board, starting from 1.

Choose whether to divide the number you land on by 3 or 4 and score the remainder.

Keep track of your score.

I have landed on 23

$$23 \div 4 = 4 \text{ r}3$$

$$23 \div 3 = 7 \text{ r}2$$

so I will divide by 4 and score 3

To win:

The winner is the player with the highest score when a player reaches (or passes) 100



Division Choice Game Board

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



Missing Number Workout

Workout E

Put digits in the empty boxes so that the calculations are correct.

Complete them in several different ways.

Possible
solution

$$34 \boxed{7} + 199 = 54 \boxed{6}$$

$$\boxed{9} 07 - \boxed{8} 9 \boxed{4} = \boxed{1} \boxed{3}$$

$$6 \boxed{0} 0 - 8 = \boxed{5} 9 \boxed{2}$$

Are there any boxes that it is impossible to put a 1 in? Why?
What about other impossible digits?

Are there any boxes that could have any of the digits in them?

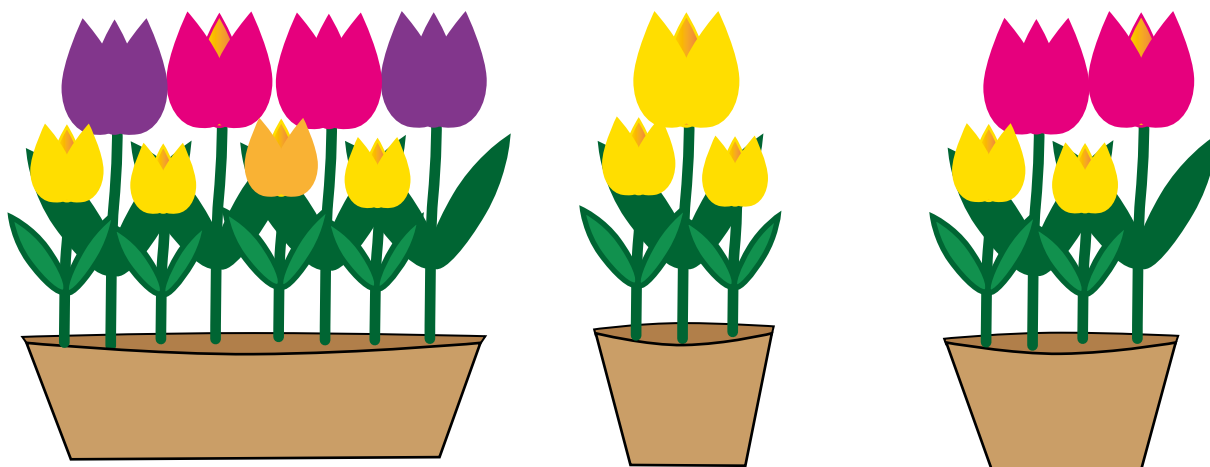
Now complete it using the digits 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 once each.



Flowers Challenge

Workout F

A garden centre has lots of pots of flowers.
They have either 3, 4 or 8 flowers in each pot.



Colin wants to buy 24 flowers. Investigate the combinations of pots he could buy.

- 8 pots of 3
- 6 pots of 4
- 3 pots of 8
- 1 pot of 8 and 4 pots of 4
- 2 pots of 8 and 2 pots of 4
- 3 pots of 4 and 4 pots of 3

Pots of 3 flowers cost £5, pots of 4 cost £7 and pots of 8 cost £13
What is the cheapest combination he can buy?

- | | | | |
|-------------|-----|-----------------------------|-----|
| 8 pots of 3 | £40 | 1 pot of 8 and 4 pots of 4 | £41 |
| 6 pots of 4 | £42 | 2 pots of 8 and 2 pots of 4 | £40 |
| 3 pots of 8 | £39 | 3 pots of 4 and 4 pots of 3 | £41 |

so 3 pots of 8 is cheapest.

The garden centre introduces pots of 5 flowers for £8
Is there a cheaper combination now?

The cost of a pot of 3 plus a pot of 5 is equal to the cost of a pot of 8

So 3 pots of 8 is still cheapest. Although using a pot of 3 plus a pot of 5 instead of a pot of 8 gives the same total cost.



Word Problem Workout

Workout G

1. Pencils are sold in packs of 8. They cost £4 per pack.

A teacher buys three packs.

How much does she pay?

£12

2. Coco's crackers have eight in a pack.

She has six full packs in the cupboard.

She eats 6 crackers.

How many crackers does she have left altogether?

42

3. Colin saves £300

He buys a new jacket for £99 and some new antler warmers for £125

How much money does Colin have left?

£76

4. 54 scouts go on a camping trip.

Each tent can sleep 4 scouts.

How many tents do they need?

14 tents (13 r2)

5. Coco goes to visit some friends. They live 224 miles away.

She travels 84 miles then has a rest. She travels another 98 miles.

How far does she have left to travel?

42 miles

Create your own problems adding or subtracting 3-digit numbers.



Matching Workout

Match the calculation to the answer.

Fill in the missing buddies.

$51 \div 3$	$160 \div 8$
$45 \div 3$	$104 \div 8$
$128 \div 8$	17
13	19
$57 \div 3$	15
20	$144 \div 8$
18	16
$42 \div 3$	$96 \div 8$
12	14

Match the calculation to the answer.

Fill in the missing buddies.

Possible
solution

$236 + 99$	346
$438 - 99$	343
$247 + 99$	335
$244 + 99$	336
$444 - 99$	333
$435 - 99$	339
$234 + 99$	347
$446 - 99$	345

Create your own Matching Workout.



Cards for the Games

1

2

3

4

5

6

7

8

9

0