



# Colin and Coco's Daily Maths Workout

Workout 3.5

Answers

Fractions: Calculating





## Fractions: Calculating Workout

Workout A

$$\frac{1}{3} \text{ of } 3 = \boxed{1}$$

$$\frac{1}{4} \text{ of } 4 = \boxed{1}$$

$$\frac{3}{4} \text{ of } 4 = \boxed{3}$$

$$\frac{1}{3} \text{ of } 6 = \boxed{2}$$

$$\frac{1}{4} \text{ of } 8 = \boxed{2}$$

$$\frac{3}{4} \text{ of } 8 = \boxed{6}$$

$$\frac{1}{3} \text{ of } 12 = \boxed{4}$$

$$\frac{1}{4} \text{ of } 20 = \boxed{5}$$

$$\frac{3}{4} \text{ of } 20 = \boxed{15}$$

$$\frac{1}{3} \text{ of } 24 = \boxed{8}$$

$$\frac{1}{4} \text{ of } 28 = \boxed{7}$$

$$\frac{3}{4} \text{ of } 28 = \boxed{21}$$

## Fractions: Calculating Workout

Workout B

$$\frac{1}{3} \text{ of } 18 = \boxed{6}$$

$$\frac{2}{4} \text{ of } 12 = \boxed{6}$$

$$\frac{3}{4} \text{ of } 12 = \boxed{9}$$

$$\frac{1}{3} \text{ of } 15 = \boxed{5}$$

$$\frac{2}{4} \text{ of } 16 = \boxed{8}$$

$$\frac{3}{4} \text{ of } 16 = \boxed{12}$$

$$\frac{1}{3} \text{ of } 30 = \boxed{10}$$

$$\frac{2}{4} \text{ of } 40 = \boxed{20}$$

$$\frac{3}{4} \text{ of } 40 = \boxed{30}$$

$$\frac{1}{3} \text{ of } 45 = \boxed{15}$$

$$\frac{2}{4} \text{ of } 48 = \boxed{24}$$

$$\frac{3}{4} \text{ of } 48 = \boxed{36}$$

## Fractions: Calculating Workout

Workout C

$$\frac{1}{3} \text{ of } 36 = \boxed{12}$$

$$\frac{2}{4} \text{ of } 40 = \boxed{20}$$

$$\frac{1}{3} \text{ of } 60 = \boxed{20}$$

$$\frac{1}{4} \text{ of } 36 = \boxed{9}$$

$$\frac{3}{4} \text{ of } 60 = \boxed{45}$$

$$\frac{3}{4} \text{ of } 200 = \boxed{150}$$

$$\frac{2}{4} \text{ of } 60 = \boxed{30}$$

$$\frac{2}{4} \text{ of } 80 = \boxed{40}$$

$$\frac{3}{4} \text{ of } 120 = \boxed{90}$$

$$\frac{3}{4} \text{ of } 80 = \boxed{60}$$

$$\frac{3}{4} \text{ of } 100 = \boxed{75}$$

$$\frac{1}{3} \text{ of } 120 = \boxed{40}$$



## Fractions of Amounts (3) Game

Workout D

You need:

1 - 6 dice

Counter for each player

Fractions of Amounts board (next page.)

To play:

Take it in turns to throw the dice and move along the board.

Calculate the amount that you land on and score that amount.

I have landed on  $\frac{3}{4}$  of 52 so I divide 52 by 4 to find one quarter.  
52 is 40 plus 12. That is  $10 \times 4$  and  $3 \times 4$  so 13 fours in total.  
I score 3 lots of 13, so I score 39.

If you land on Colin the CanDo Caribou you do nothing.  
The game ends when the first player passes the Finish.

To win:

The winner is the player with the highest score.



# Fractions of Amounts (3) Board

$$\frac{3}{4} \text{ of } 36$$



$$\frac{1}{2} \text{ of } 58$$

$$\frac{1}{3} \text{ of } 54$$

$$\frac{3}{4} \text{ of } 80$$

$$\frac{1}{2} \text{ of } 20$$

Finish

$$\frac{3}{4} \text{ of } 76$$



$$\frac{3}{4} \text{ of } 68$$

$$\frac{1}{3} \text{ of } 48$$

$$\frac{1}{3} \text{ of } 9$$

$$\frac{3}{4} \text{ of } 72$$

$$\frac{1}{3} \text{ of } 51$$

$$\frac{3}{4} \text{ of } 64$$

$$\frac{1}{3} \text{ of } 45$$

$$\frac{3}{4} \text{ of } 56$$



$$\frac{1}{3} \text{ of } 42$$

$$\frac{1}{3} \text{ of } 33$$

$$\frac{3}{4} \text{ of } 60$$

$$\frac{1}{2} \text{ of } 56$$



$$\frac{3}{4} \text{ of } 52$$

$$\frac{3}{4} \text{ of } 24$$



$$\frac{1}{4} \text{ of } 48$$

$$\frac{3}{4} \text{ of } 12$$

$$\frac{1}{3} \text{ of } 27$$

$$\frac{1}{3} \text{ of } 51$$

Start



## Missing Number Workout

Workout E

Put digits in the empty boxes to complete the statements.  
Complete each one in several different ways.

Possible  
Solution

$$\frac{1}{5} \text{ of } 30 = 6$$

$$9 = \frac{3}{4} \text{ of } 12$$

$$\frac{2}{3} \text{ of } 27 = 18$$

Are there any boxes that it is impossible to put a 7 in?  
Why?

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

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



# Sweets Challenge

Workout F

Coco is buying packets of sweets.

Packet of  
Jellied Eels  $\frac{1}{10}$  kg



Packet of  
Mint Rock  $\frac{2}{10}$  kg



Packet of  
Liquorice Sticks  $\frac{3}{10}$  kg



She buys two packets of sweets.  
What fraction of a kilogram could they weigh in total?

$$\frac{1}{10} + \frac{1}{10} = \frac{2}{10} \text{ kg}$$

$$\frac{1}{10} + \frac{2}{10} = \frac{3}{10} \text{ kg}$$

$$\frac{2}{10} + \frac{2}{10} = \frac{4}{10} \text{ kg}$$

$$\frac{1}{10} + \frac{3}{10} = \frac{4}{10} \text{ kg}$$

$$\frac{3}{10} + \frac{3}{10} = \frac{6}{10} \text{ kg}$$

$$\frac{2}{10} + \frac{3}{10} = \frac{5}{10} \text{ kg}$$

What if she buys three packets of sweets?

Investigate different ways Coco could buy  $\frac{7}{10}$  kg sweets.



## Word Problem Workout

Workout G

Coco has 36 Seed Sticks.

She eats  $\frac{3}{4}$  of her Seed Sticks for lunch.

How many Seed Sticks does she eat for lunch?

How many does she have left?

27,  
9 left

Coco is making a fruit salad.

$\frac{3}{8}$  of the salad is apples. Oranges make up  $\frac{2}{8}$  of the salad.

Bananas make up  $\frac{1}{8}$  of the salad.

The rest of the salad is pears.

What fraction of the salad is made up of pears?

$\frac{2}{8}$

Colin paves  $\frac{1}{5}$  of his patio with white slabs.

He paves  $\frac{3}{5}$  of his patio with grey slabs.

The rest of the patio is red slabs.

What fraction of the patio is paved with red slabs?

$\frac{1}{5}$

Coco bakes 48 cup cakes.

Colin takes  $\frac{3}{4}$  of them to share with his friends.

How many cup cakes does Coco have left?

12

Coco has 120 bulbs to plant.

After planting one third of them she has a rest.

How many bulbs does she have left to plant?

80

Colin has some chocolates. He gives one third of them to Coco. He gives one third of them to Steve.

He has 16 chocolates left.

How many chocolates did he start with?

48

Create your own problems finding  $\frac{1}{3}$  or  $\frac{3}{4}$  of amounts.



# Who am I? Workout

Workout H

Use the clues to work out Colin's mystery number.

You may want to cross numbers off on the 100 grid as you consider each clue.

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

- 1) I am an even number
- 2) I am less than 50
- 3) I am not a multiple of 10
- 4) The difference between my digits is less than 4
- 5) My ones digit is between 1 and 7
- 6) The sum of my digits is odd
- 7) I am not a multiple of 8
- 8) My tens digit is less than my ones digit
- 9) I am a multiple of 3
- 10) I am the product of two consecutive numbers

Colin's mystery number is 

12
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Create your own 'Who am I?' puzzle

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

Please share your puzzle with Colin @MathsCanDo