Colin and Coco's Daily Maths Workout
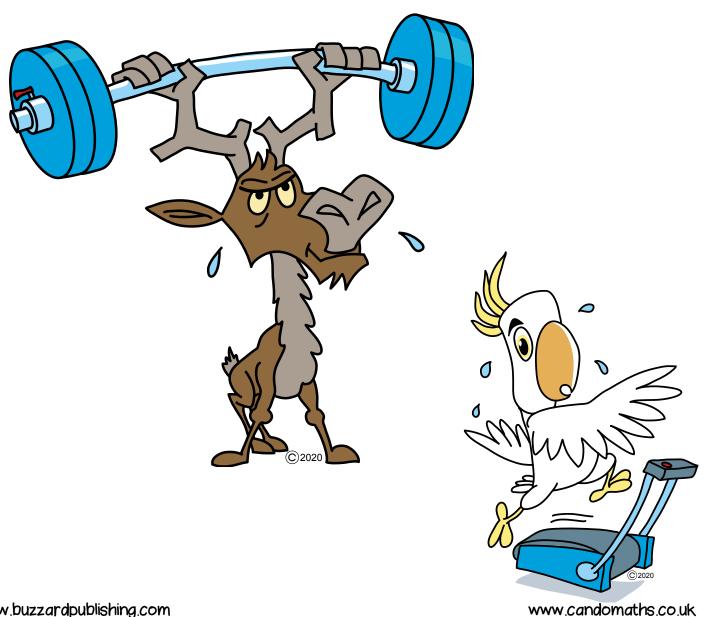
Workout 6.5

Answers

Fractions: Calculating

Fractions: Calculating Workout

$\frac{1}{2} + \frac{1}{3} = \boxed{\frac{5}{6}}$ $\frac{2}{5} + \frac{1}{4} = \boxed{\frac{13}{20}}$ $\frac{4}{7} + \frac{4}{5} = \boxed{\frac{48}{35} = 1\frac{13}{35}}$

$\frac{1}{3} + \frac{1}{4} = \boxed{\frac{7}{12}}$ $\frac{2}{5} + \frac{3}{4} = \boxed{\frac{23}{20} = 1\frac{3}{20}}$ $\frac{2}{7} + \frac{4}{5} = \boxed{\frac{38}{35} = 1\frac{3}{35}}$

$\frac{1}{4} + \frac{1}{5} = \boxed{\frac{9}{20}}$ $\frac{2}{3} + \frac{4}{7} = \boxed{\frac{26}{21} = 1\frac{5}{21}}$ $\frac{1}{3} + \frac{2}{6} + \frac{1}{5} = \boxed{\frac{13}{15}}$

$\frac{1}{5} + \frac{1}{6} = \boxed{\frac{11}{30}}$ $\frac{2}{3} + \frac{3}{8} = \boxed{\frac{25}{24} = 1\frac{1}{24}}$ $\frac{1}{4} + \frac{3}{8} + \frac{1}{6} = \boxed{\frac{19}{24}}$

Fractions: Calculating Workout

$1\frac{4}{7} + 1\frac{1}{7} = \boxed{2\frac{5}{7}}$ $1\frac{2}{7} - \frac{5}{7} = \boxed{\frac{4}{7}}$ $1\frac{3}{7} + \frac{5}{7} = \boxed{2\frac{1}{7}}$

$1\frac{1}{5} + 2\frac{3}{5} = \boxed{3\frac{4}{5}}$ $2\frac{3}{5} - 1\frac{2}{5} = \boxed{1\frac{1}{5}}$ $2\frac{2}{5} - 1\frac{3}{5} = \boxed{\frac{4}{5}}$

$1\frac{1}{4} + 1\frac{3}{8} = \boxed{2\frac{5}{8}}$ $2\frac{3}{4} - 1\frac{1}{8} = \boxed{1\frac{5}{8}}$ $2\frac{3}{4} + 1\frac{3}{8} = \boxed{4\frac{1}{8}}$

$1\frac{1}{6} + 2\frac{2}{3} = \boxed{3\frac{5}{6}}$ $3\frac{5}{6} - 1\frac{2}{3} = \boxed{2\frac{1}{6}}$ $3\frac{2}{3} - 1\frac{5}{6} = \boxed{1\frac{5}{6}}$

Fractions: Calculating Workout

$\frac{1}{2} \times \frac{1}{3} = \boxed{\frac{1}{6}}$ $\frac{1}{2} \div 2 = \boxed{\frac{1}{4}}$ $1\frac{1}{3} \times 2 = \boxed{2\frac{2}{3}}$

$\frac{1}{2} \times \frac{2}{3} = \boxed{\frac{2}{6} = \frac{1}{3}}$ $\frac{1}{2} \div 3 = \boxed{\frac{1}{6}}$ $1\frac{3}{4} \times 2 = \boxed{3\frac{2}{4} = 3\frac{1}{2}}$

$\frac{3}{4} \times \frac{2}{3} = \boxed{\frac{6}{12} = \frac{1}{2}}$ $\frac{2}{8} \div 2 = \boxed{\frac{1}{8}}$ $2\frac{1}{5} \times 3 = \boxed{6\frac{3}{5}}$

$\frac{2}{3} \times \frac{2}{5} = \boxed{\frac{4}{15}}$ $\frac{2}{5} \div 3 = \boxed{\frac{2}{15}}$ $4 \times 1\frac{3}{4} = \boxed{7}$

Make it Equal Game

You need:
Fractions cards (at the bottom of this sheet.)

To play:
Shuffle the cards and place them face down on the table.
Player A picks 2 cards and adds the fractions to find the total.
Player B picks just one card and calculates the difference between their card and player A's total. This is Player B's score.
Players then swap roles.

Player A: My fractions are $\frac{5}{6}$ and $\frac{3}{4}$ so my total is $1\frac{7}{12}$
Player B: My fraction card is $\frac{7}{8}$ so I score $\frac{17}{24}$

(If Player B's card is equal to Player A's total then they score nothing.)

To win:
The winner is the first player to accumulate a score of over 3

$$\frac{5}{8} \qquad \frac{5}{12} \qquad \frac{3}{4} \qquad \frac{5}{6}$$

$$\frac{4}{6} \qquad \frac{7}{12} \qquad \frac{7}{8}$$

Missing Number Workout

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

Possible
Solution

$$\frac{\boxed{4}}{9} + \frac{\boxed{1}}{3} = \frac{7}{9}$$

$$1\frac{\boxed{5}}{8} = 3\frac{\boxed{6}}{8} - 2\frac{\boxed{1}}{8}$$

$$\frac{2}{\boxed{9}} \times \boxed{5} = \frac{\boxed{1}\boxed{0}}{9}$$

Are there any boxes that it is impossible to put a 5 in?
Why?

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

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

Pick and Mix Challenge

A group of children are going to the cinema. They club together to buy 2kg of Pick and Mix.

The sweets have to be purchased in the following weights.

Jellied Eels $\frac{2}{5}$ kg

Mint Rock $\frac{3}{4}$ kg

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

Toffee Chews $\frac{3}{8}$ kg

Which sweets could they buy to make up 2kg?
Find at least two different ways.

Possible solutions

5 x Jellied Eels
4 x Liquorice Sticks, 2 x Jellied Eels

Word Problem Workout

Coco has a recipe that needs $\frac{3}{4}$ kg of nuts.
She has two packets of nuts with $\frac{3}{8}$ kg in each packet.
Does she have enough nuts?

$2 \times \frac{3}{8} = \frac{3}{4}$ so Yes

Colin goes jogging.
He jogs $\frac{3}{4}$ km every day for a week.
How far has he jogged in total?

$\frac{21}{4} = 5\frac{1}{4}$ km

Coco has a bottle of lemonade. It has $\frac{5}{6}$ of a litre of lemonade in it.
Coco and Colin share the lemonade equally.
What fraction of a litre do they each drink?

$\frac{5}{6} \div 2 = \frac{5}{12}$ litre

Coco is trying to eat more healthily.
She eats $\frac{1}{3}$ of a grapefruit each day.
How many grapefruits will she need to buy to last a week?

$7 \times \frac{1}{3} = \frac{7}{3}$ so she needs 3

Coco is cutting ribbons for decorations.
She has $\frac{6}{7}$ of a metre of ribbon. She cuts it into 3 equal pieces.
What fraction of a metre is each piece?

$\frac{6}{7} \div 3 = \frac{2}{7}$ metre

Create your own problems to multiply or divide fractions.

Who am I?
Workout

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 odd
2) I am not a multiple of 7
3) I am not a square number
4) Only one of my digits is prime
5) My digits are not equal

6) One of my digits is a factor of 12
7) Both digits are not multiples of 3
8) I am not a multiple of 9
9) The sum of my digits is a prime number
10) I have a common factor with 26

Colin's mystery number is **65**

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