



Colin and Coco's Daily Maths Workout

Workout 1.5

Answers

Fractions: Calculating

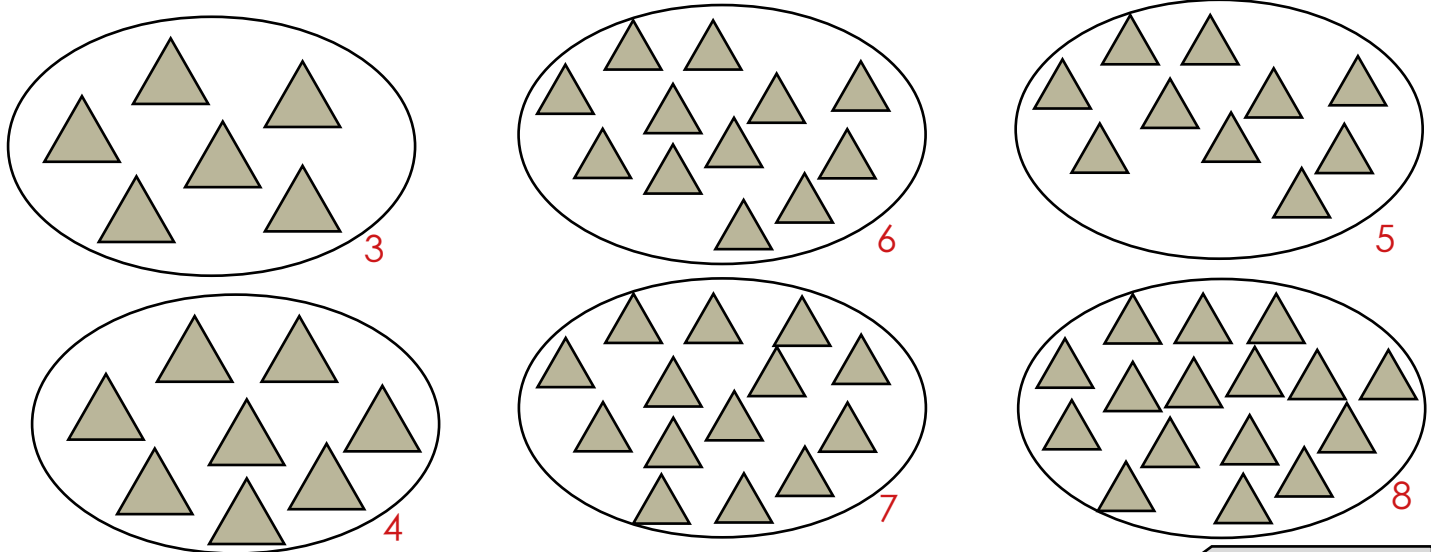




Fractions: Calculating Workout

Workout A

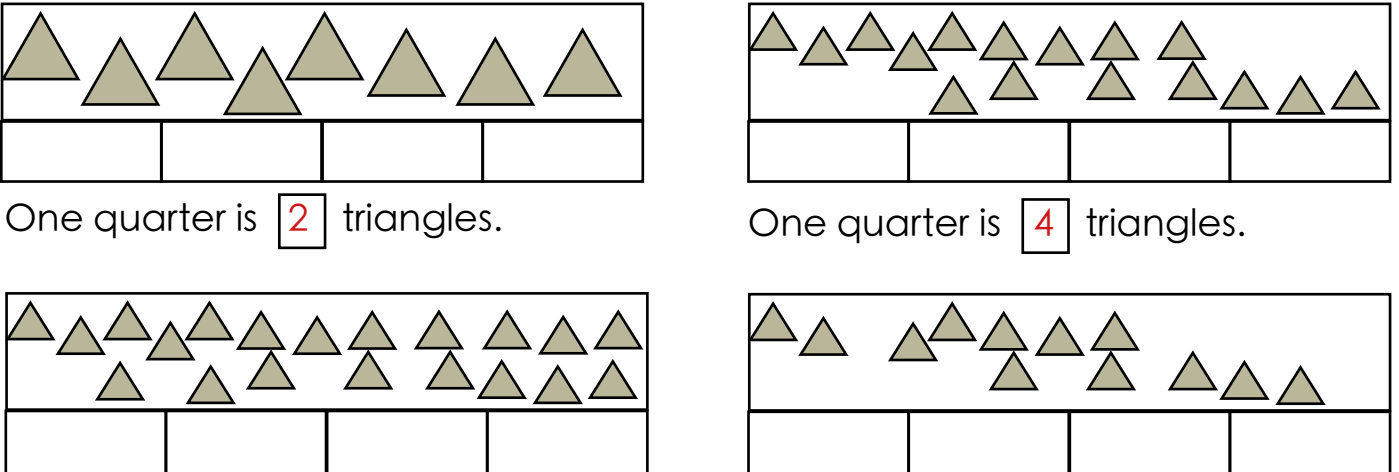
Find half of each set of triangles.



Fractions: Calculating Workout

Workout B

Find one quarter of each set of triangles.



One quarter is 2 triangles.

One quarter is 4 triangles.

One quarter is 5 triangles.

One quarter is 3 triangles.

Fractions: Calculating Workout

Workout C

$\frac{1}{2}$ of 8 = 4 $\frac{1}{2}$ of 10 = 5 $\frac{1}{2}$ of 6 = 3

$\frac{1}{2}$ of 12 = 6 $\frac{1}{4}$ of 16 = 4 $\frac{1}{4}$ of 4 = 1

$\frac{1}{2}$ of 20 = 10 $\frac{1}{4}$ of 20 = 5 $\frac{1}{4}$ of 8 = 2

$\frac{1}{2}$ of 18 = 9 $\frac{1}{4}$ of 12 = 3 $\frac{1}{4}$ of 40 = 10



Fractions of Amounts Game

Workout D

You need:

Buttons / pasta / items to count

1 - 6 dice

Counter or item each

Fractions of Amounts board (next page.)

To play:

Have the buttons available to calculate the fractions of amounts.

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 $\frac{1}{4}$ of 12 so I
divide 12 into four equal groups of 3.
I score 3.

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 Board

| | | | | | |
|------------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| $\frac{1}{4}$ of 8 | | $\frac{1}{2}$ of 18 | $\frac{1}{2}$ of 14 | $\frac{1}{4}$ of 12 | $\frac{1}{2}$ of 20 |
| Finish | | | | | $\frac{1}{4}$ of 16 |
| | | | | | |
| | | | | | $\frac{1}{2}$ of 10 |
| | $\frac{1}{4}$ of 8 | $\frac{1}{2}$ of 16 | $\frac{1}{2}$ of 18 | $\frac{1}{4}$ of 12 | |
| $\frac{1}{4}$ of 12 | | | | | |
| $\frac{1}{2}$ of 20 | | | | | |
| $\frac{1}{4}$ of 16 | | $\frac{1}{2}$ of 12 | $\frac{1}{2}$ of 4 | $\frac{1}{4}$ of 20 | $\frac{1}{2}$ of 6 |
| | | | | | |
| | | | | | $\frac{1}{4}$ of 8 |
| $\frac{1}{2}$ of 16 | | $\frac{1}{4}$ of 16 | $\frac{1}{4}$ of 12 | $\frac{1}{2}$ of 10 | $\frac{1}{2}$ of 18 |

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

$$\frac{1}{2} \text{ of } 10 = 5$$

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

Now complete both statements together using the digits
0, 1, 2, 3, 4 and 5
at least once each.



Acorn Challenge

Coco is finding fractions of her acorns.



When she finds half of them there are fewer than 12 but more than 7

When she tries to find $\frac{1}{4}$ of them there are 2 left over.

Find the possible numbers of acorns she could have.

Using buttons as acorns and using the bar models below might help.

18, 22

| | |
|--|--|
| | |
|--|--|

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|



Word Problem Workout

Workout G

Coco has 12 Seed Sticks.

She eats $\frac{1}{4}$ of her Seed Sticks for lunch.

How many Seed Sticks does she eat for lunch?

How many does she have left?

3, 9

Colin goes on a 20 minute car trip.

He sleeps for half of the trip.

How long does he sleep for?

10 minutes

Coco bakes 20 cup cakes.

Colin eats $\frac{1}{4}$ of them.

How many cup cakes does Coco have left? 15

Coco has 24 fence panels around her garden.

After painting half of them she has a rest.

How many panels does she have left to paint?

12

Colin has some chocolates. He gives half of them to Coco.

He has 6 chocolates left.

How many chocolates did he start with?

12

Create your own problems finding $\frac{1}{2}$ or $\frac{1}{4}$ of amounts.



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 less than 50

2) I am between 10 and 40

3) My digits are not equal

4) The sum of the digits is a 2-digit number
- 5) The ones digit is not zero

6) If I add one to my number, the tens digit will change

7) The difference between the digits is 7

Colin's mystery number is 29

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