

## Workout

Question 1:

- (a) Increase 40 by  $\frac{1}{2}$       (b) Increase 18 by  $\frac{1}{3}$       (c) Decrease 20 by  $\frac{1}{4}$   
(d) Increase 30 by  $\frac{1}{5}$       (e) Decrease 24 by  $\frac{1}{8}$       (f) Decrease 70 by  $\frac{1}{10}$   
(g) Increase 120 by  $\frac{1}{3}$       (h) Decrease 80 by  $\frac{1}{5}$       (i) Increase 72 by  $\frac{1}{9}$

Question 2:

- (a) Increase 12 by  $\frac{2}{3}$       (b) Decrease 40 by  $\frac{3}{10}$       (c) Increase 30 by  $\frac{2}{5}$   
(d) Decrease 16 by  $\frac{3}{4}$       (e) Increase 90 by  $\frac{7}{10}$       (f) Decrease 14 by  $\frac{3}{7}$   
(g) Increase 48 by  $\frac{5}{8}$       (h) Decrease 54 by  $\frac{2}{9}$       (i) Increase 84 by  $\frac{3}{4}$   
(j) Increase 275 by  $\frac{2}{5}$       (k) Decrease 240 by  $\frac{3}{8}$       (l) Increase 324 by  $\frac{7}{9}$

Question 3:

- (a) Increase 60cm by  $\frac{3}{10}$       (b) Decrease 120kg by  $\frac{1}{4}$       (c) Increase 400ml by  $\frac{2}{5}$   
(d) Increase 14g by  $\frac{1}{5}$       (e) Decrease 50 litres by  $\frac{1}{8}$       (f) Increase 130ml by  $\frac{3}{4}$   
(g) Increase £76 by  $\frac{2}{5}$       (h) Increase 92cm by  $\frac{3}{20}$       (i) Increase 1.4kg by  $\frac{7}{8}$

## Apply

Question 1: Annie is paid £300 per week.  
She is going to get a pay rise and her pay will increase by a  $\frac{1}{5}$

What will her weekly pay be after the pay rise?

## Fractions: Increasing/Decreasing by

Video 141 on [www.corbettmaths.com](http://www.corbettmaths.com)

Question 2: Last season, the number of points a rugby team scored was 420.

This season, the number of points they scored increased by  $\frac{2}{3}$

How many points did the team score this season?

Question 3: A jam jar usually contains 420g of jam.

A special edition jar contains  $\frac{3}{10}$  more jam.

How much extra jam is in the special edition jar?

Question 4: Find the missing values

(a) 60 reduced by a  $\frac{1}{3}$  is the same as 50 reduced by a

(b) 72 increased by a  $\frac{3}{4}$  is the same as  reduced by a  $\frac{1}{10}$

Question 5: In 1990, the number of birds that live on an island was 1,200.

By 2010, the number of birds that live on the island increased by  $\frac{9}{4}$

How many birds live on the island in 2010?

Question 6: Tia is training for a marathon using a special training programme.

Each month she runs  $\frac{2}{5}$  more miles than she did in the previous month.

In January, Tia ran 15 miles.

(a) How many miles did Tia run in February?

(b) How many miles did Tia run in March?

David says that Tia will not follow the special training programme forever.

(c) Explain why David is right.