

100 People

T1

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?
Show your calculation.

$$\frac{25}{100} = \frac{1}{4}$$

$$\frac{1}{4}$$

How many people in the world do not have food and shelter?
Show your calculation.

$$1,750,000,000$$

$$\begin{array}{r} 4 \overline{) 7,000,000,000} \\ \underline{4,000,000,000} \\ 3,000,000,000 \\ \underline{3,000,000,000} \\ 0 \end{array}$$

2. How many more people in the world speak Chinese than speak English?
Show your working.

$$630,000,000$$

$$\begin{array}{l} 70,000,000 \cdot 100 = \\ \frac{9}{100} \cdot 7,000,000,000 = \\ 9 \cdot 70,000,000 = 630,000,000 \end{array}$$

3. Approximately three hundred million (300,000,000) people live in the USA.
In the world of 100 people, how many people would live in the USA?
Explain how you know.

4 people

300,000,000 over 7,000,000,000 equals about
.0428. If you simplify that you get about 3/70.
Then you divide 100 by 70 and get 1.42.
1.42 \cdot 3 = 4.26 round off to 4.

8

100 People

T2

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?

Show your calculation.

$$\frac{25}{100} = \frac{1}{4}$$

1/4

How many people in the world do not have food and shelter?

Show your calculation.

$$1750000000$$

$$1750000000$$

$$\frac{1}{4} \times 7000000000$$

2. How many more people in the world speak Chinese than speak English?

Show your working.

$$7000000000 - 5600000000 = 6440000000$$

$$6440000000$$

3. Approximately three hundred million (300,000,000) people live in the USA.

In the world of 100 people, how many people would live in the USA?

Explain how you know.

$$\frac{300000000}{7000000000} = 0.042857 \times 100 = 4.2857$$

4

4

100 People

T3

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?

Show your calculation.

$$100/25 = 1/4$$

1/4 ✓

How many people in the world do not have food and shelter?

Show your calculation.

$$7,000,000,000/4 = 1,750,000,000$$

1,750,000,000

2. How many more people in the world speak Chinese than speak English?

Show your working.

$$17 - 8 = 9$$

$$7,000,000,000/9 = 777,777,777.77$$

777,777,777.77

3. Approximately three hundred million (300,000,000) people live in the USA.

In the world of 100 people, how many people would live in the USA?

Explain how you know.

$$300,000,000/100 = 3,000,000$$

3,000,000



100 People

T4

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children **1400000000 children**
- 25 people would not have food and shelter **1750000000 people**
- 17 people would speak only Chinese **1190000000 people**
- 8 would speak only English **560000000**

$$\frac{1}{4}$$

1. What fraction of people in the world do not have food and shelter?
Show your calculation.

How many people in the world do not have food and shelter?
Show your calculation.

1750000000

636000000

2. How many more people in the world speak Chinese than speak English?
Show your working.

$$\begin{array}{r} 7000000000 \\ \times .17 \\ \hline 1190000000 \\ - 560000000 \\ \hline 630000000 \end{array}$$

$$\begin{array}{r} 7000000000 \\ \times .08 \\ \hline 560000000 \end{array}$$

3. Approximately three hundred million (300,000,000) people live in the USA.
In the world of 100 people, how many people would live in the USA?
Explain how you know.

≈ 23

$$7000000000 \div 300000000 \approx 23$$



100 People

T5

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?
Show your calculation.

14 people

How many people in the world do not have food and shelter?
Show your calculation.

1,750,000,000

$$700 \quad 7000000000 \div 100 \times 25 =$$
$$1750000000$$

2. How many more people in the world speak Chinese than speak English?
Show your working.

63,000,000
more people.

$$1190000000 - 560000000$$

3. Approximately three hundred million (300,000,000) people live in the USA.
In the world of 100 people, how many people would live in the USA?
Explain how you know.

3,000,000

I divided 3000,000,000 by 100.



100 People

S1

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

$$\frac{1}{4}$$

1. What fraction of people in the world do not have food and shelter?
Show your calculation.

How many people in the world do not have food and shelter?
Show your calculation.

$$1,750,000,000$$

$$4 \overline{) 7,000,000,000}$$

2. How many more people in the world speak Chinese than speak English?
Show your working.

$$630,000,000$$

people

$$\frac{17}{100} = .17 \quad \frac{8}{100} = .08$$

$$\begin{aligned} .17 \times 7,000,000,000 &= 1,190,000,000 \\ .08 \times 7,000,000,000 &= 560,000,000 \\ \hline 1,190,000,000 \\ - 560,000,000 \\ \hline 630,000,000 \end{aligned}$$

$$.043$$

3. Approximately three hundred million (300,000,000) people live in the USA.
In the world of 100 people, how many people would live in the USA?
Explain how you know.

$$4$$

$\frac{300,000,000}{7,000,000,000} = \text{about } .043$ if you multiply that by 100 you get about 4



100 People

S2

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?

Show your calculation.

$$\frac{7 \text{ billion}}{x} = \frac{100}{25} \quad \frac{100x}{100} = \frac{175}{100} \quad x = 1.75 \text{ billion}$$

$$\frac{1.75 \text{ billion}}{7 \text{ billion}}$$

How many people in the world do not have food and shelter?

Show your calculation.

$$1.75 / 7 = .25 \text{ billion}$$

$$0.25 \text{ billion}$$

2. How many more people in the world speak Chinese than speak English?

Show your working.

$$17/100 = x/7$$

$$\frac{100x}{100} = \frac{119}{100} \\ x = 1.19 \text{ billion}$$

$$8/100 = x/7$$

$$\frac{100x}{100} = \frac{56}{100} \\ x = 0.56 \text{ billion}$$

$$\begin{array}{r} 1.19 \\ -0.56 \\ \hline 0.63 \end{array}$$

$$0.63 \text{ billion}$$

3. Approximately three hundred million (300,000,000) people live in the USA.

In the world of 100 people, how many people would live in the USA?

Explain how you know.

$$3/7 = x/100 \quad x \approx 4.3$$

$$\frac{7x}{7} = \frac{30}{7}$$

$$\approx 4$$

100 People

S3

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?
Show your calculation.

$$\frac{1}{4}$$

How many people in the world do not have food and shelter?
Show your calculation.

$$2,250,000,000$$

$$7,000,000,000 / 4$$

2. How many more people in the world speak Chinese than speak English?
Show your working.

$$1.1,440,000,000$$

English
560 mill

Chinese
12 billion

$$\begin{array}{r} 11,900,000,000 \\ - 560,000,000 \\ \hline 11,440,000,000 \end{array}$$

3. Approximately three hundred million (300,000,000) people live in the USA.
In the world of 100 people, how many people would live in the USA?
Explain how you know.

$$8$$

Because if you speak english you could be from U.S.A.

100 People

S4

This problem gives you the chance to:
• Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?
Show your calculation.

$$\frac{25}{100} = \frac{1}{4}$$

$$\frac{1}{4}$$

How many people in the world do not have food and shelter?
Show your calculation.

$$\frac{1}{4} \times 7,000,000,000 = 1,750,000,000$$

$$1,750,000,000$$

2. How many more people in the world speak Chinese than speak English?
Show your working.

$$\frac{17}{100} \quad \frac{8}{100}$$

$$7,000,000,000 \div 100 =$$

$$70,000,000 \cdot 8 = 560,000,000$$

$$70,000,000 \cdot 17 = 1,190,000,000$$

$$\begin{array}{r} 1,190,000,000 \\ - 560,000,000 \\ \hline 630,000,000 \end{array}$$

$$630,000,000$$

3. Approximately three hundred million (300,000,000) people live in the USA.
In the world of 100 people, how many people would live in the USA?
Explain how you know.

$$300,000,000 \div 100 = 3,000,000$$

$$3,000,000$$

100 People

S5

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?

Show your calculation.

$$100 \div 25 = 4 = \frac{1}{4}$$

$\frac{1}{4}$ of them

How many people in the world do not have food and shelter?

Show your calculation.

$$7,000,000,000 \div 4 = 1,750,000,000$$

1,750,000,000

2. How many more people in the world speak Chinese than speak English?

Show your working.

$$\begin{array}{r} 411764705.9 \\ - 87500000.0 \\ \hline \end{array}$$

$$324264705.9$$

324264705.9

3. Approximately three hundred million (300,000,000) people live in the USA.

In the world of 100 people, how many people would live in the USA?

Explain how you know.

$$\frac{7000000000}{300000000} = 23.\bar{3} = 23$$

23 people

100 People

S6

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?

25% ✓

Show your calculation.

$$25 \div 100 \times 100 = 25$$

How many people in the world do not have food and shelter?

1750000000 ✓

Show your calculation.

$$7000000000 \div 100 \times 25$$

2. How many more people in the world speak Chinese than speak English?

9% ✓

Show your working.

$$17 - 8 = 9 \div 100 \times 100 = 9$$

3. Approximately three hundred million (300,000,000) people live in the USA.

In the world of 100 people, how many people would live in the USA?

4 people ✓

Explain how you know.

Because I take off all the zeros on three hundred million and got three then all but 1 zero on seven billion and got seventy then divided seventy by three and multiplied the answer by 100 and got 4.

100 People

S7

This problem gives you the chance to:
• Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

$$\frac{25}{100} \rightarrow \frac{1}{4} \checkmark$$

1. What fraction of people in the world do not have food and shelter?
Show your calculation.

$$25 \cdot 70,000,000 =$$

How many people in the world do not have food and shelter?
Show your calculation.

$$17,500,000,000$$

2. How many more people in the world speak Chinese than speak English?
Show your working.

$$134,000,000$$

$$17 \cdot 70,000,000 = 1,190,000,000$$

$$8 \cdot 70,000,000 = 560,000,000$$

$$\underline{134,000,000}$$

3. Approximately three hundred million (300,000,000) people live in the USA.
In the world of 100 people, how many people would live in the USA?
Explain how you know.

4 people ✓

I know because $300,000,000 \div 7,000,000,000 = \text{about } 0.04$
people. Then I multiplied by 100.



7

100 People

S8

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?

Show your calculation.

$$25/100, \text{ or } 1/4$$

$$\underline{1/4}$$

How many people in the world do not have food and shelter?

Show your calculation.

$$\underline{1,750,000,000}$$

$$1/4 \times 7,000,000,000$$

2. How many more people in the world speak Chinese than speak English?

Show your working.

$$\begin{array}{r} *7 \\ - 8 \\ \hline 9 \end{array}$$

$$\underline{9}$$

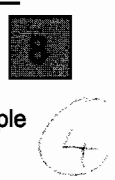
3. Approximately three hundred million (300,000,000) people live in the USA.

In the world of 100 people, how many people would live in the USA?

Explain how you know.

$$\underline{\approx 14}$$

These are like 7 continents so you would divide 100 by 7.



100 People

S9

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

7,000,000,000

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

$$\frac{25}{100} = 25\% \quad \left| \quad \begin{array}{r} 7,000,000,000 \\ \div 4 \\ \hline 1,750,000,000 \end{array} \right.$$

$$\frac{1,750,000,000}{7,000,000,000}$$

1. What fraction of people in the world do not have food and shelter?
Show your calculation.

How many people in the world do not have food and shelter?
Show your calculation.

$$\frac{25}{100} = 25\% \quad \left| \quad \begin{array}{r} 7,000,000,000 \\ \div 4 \\ \hline 1,750,000,000 \end{array} \right.$$

1,750,000,000

2. How many more people in the world speak Chinese than speak English?
Show your working.

630,000,000

Chi. $\frac{17}{100} = 17\% \quad \left| \quad \begin{array}{r} 7,000,000,000 \\ \times 17 \\ \hline 1,190,000,000 \end{array} \right.$

Eng. $\frac{8}{100} = 8\% \quad \left| \quad \begin{array}{r} 7,000,000,000 \\ \times 8 \\ \hline 560,000,000 \end{array} \right.$

$$1,190,000,000 - 560,000,000 = 630,000,000$$

3. Approximately three hundred million (300,000,000) people live in the USA.
In the world of 100 people, how many people would live in the USA?
Explain how you know.

33 people

You take the 7,000,000,000 people in the world
subtract by 300,000,000 equals 6,700,000,000 = 67%
 $100\% - 67\% = 33\%$

100 People

S10

This problem gives you the chance to:

- Calculate using real data and proportion

There are approximately seven billion (7,000,000,000) people in the world.

In the 1990s researchers calculated that if there were just 100 people in the world

- there would be 20 children
- 25 people would not have food and shelter
- 17 people would speak only Chinese
- 8 would speak only English

1. What fraction of people in the world do not have food and shelter?

Show your calculation.

$$\frac{25}{100} = \frac{1}{4}$$

$$\frac{1}{4}$$

How many people in the world do not have food and shelter?

Show your calculation.

$$\frac{25 \times 70,000,000}{100} = \frac{1,750,000,000}{7,000,000,000}$$

$$\frac{1,750,000,000}{7,000,000,000} = 1.75 \text{ bill.}$$

2. How many more people in the world speak Chinese than speak English?

Show your working.

$$17 - 8 = 9$$
$$1\% = 70 \text{ mill.}$$
$$9\% = 630 \text{ mill.}$$

$$\frac{630,000,000}{7,000,000,000} = 630 \text{ mill.}$$

3. Approximately three hundred million (300,000,000) people live in the USA.

In the world of 100 people, how many people would live in the USA?

Explain how you know.

$$4$$

If there were 100 people, 30 would live in the U.S. $30\% \approx 43$.

I think it would mean 4 people live in the U.S. and 1

person has a summer home in the U.S.