**L53 Summer 2023 Prep**

**Percentages**

**Revision**

**Questions**

**Q1.**

Lisa sees a dress in a sale.
The normal price of the dress is $45
The price of the dress is reduced by 12% in the sale.

(a)  Work out the price of the dress in the sale.

$...........................................................

**(3)**

Lisa's weekly pay increases from $525 to $546

(b)  Calculate her percentage pay increase.

...........................................................%

**(3)**

**(Total for question = 6 marks)**

**Q2.**

In a sale, normal prices are reduced by 35%
The normal price of a bed is $1200

Work out the sale price of the bed.

$ ...........................................................

**(Total for question = 3 marks)**

**Q3.**

Amit invests 15000 rupees.

At the end of one year, his investment has increased by 7 %

(a)  Work out the value of Amit's investment at the end of one year.

........................................................... rupees

**(2)**

Priya invests a sum of money at an interest rate of 8% per year.
At the end of one year, the interest she receives is 1800 rupees.

(b)  Work out the value of Priya's investment at the end of one year.

........................................................... rupees

**(3)**

**(Total for question = 5 marks)**

**Q4.**

Toy cars are made in a factory.

300 cars per hour are made in the factory.

Cars are made in the factory for hours each day.

8% of the cars made in the factory are faulty.
The rest of the cars made in the factory are **not** faulty.

Work out how many of the cars made each day are **not** faulty.

**(Total for question = 4 marks)**

**Q5.**

Jenny invests $8500 for 3 years in a savings account.
She gets 2.3% per year compound interest.

How much money will Jenny have in her savings account at the end of 3 years?
Give your answer correct to the nearest dollar.

$................

**(Total for question = 3 marks)**

**Q6.**

On 1st January 2016 Li bought a boat for $170 000
The value of the boat depreciates by 8% per year.

Work out the value of the boat on 1st January 2019
Give your answer correct to the nearest dollar.

$ ...........................................................

**(Total for question = 3 marks)**

**Q7.**

Chao bought a boat for HK$160 000
The value of the boat depreciates by 4% each year.

(a)  Work out the value of the boat at the end of 3 years.

Give your answer correct to the nearest HK$.

HK$ ...........................................................

**(3)**

Jalina gets a salary increase of 5%
Her salary after the increase is HK$252 000

(b)  Work out Jalina's salary before the increase.

HK$ ...........................................................

**(3)**

**(Total for question = 6 marks)**

**Q8.**

In 1981, the population of India was 683 million.
Between 1981 and 1991, the population of India increased by 163 million.

(a)  Express 163 million as a percentage of 683 million.
Give your answer correct to 3 significant figures.

........................................................... %

**(2)**

In 2001, the population of India was 1028 million.
Between 2001 and 2011, the population of India increased by 17.6%

(b)  Increase 1028 million by 17.6%
Give your answer to the nearest million.

........................................................... million

**(3)**

**(Total for question = 5 marks)**

**Q9.**

Here is a rectangle made from centimetre squares.

(a)  Find the area of this rectangle.

 ........................................................... cm2

**(1)**

(b)  What percentage of the rectangle is shaded?

 ........................................................... %

**(1)**

60% of a triangle is shaded.

(c)  What percentage of the triangle is not shaded?

 ........................................................... %

**(1)**

(d)  Write 60% as a decimal.

 ...........................................................

**(1)**

(e)  Change 60% to a fraction.

Give your answer in its simplest form.

 ...........................................................

**(2)**

**(Total for question = 6 marks)**

**Q10.**

Some of the land in the Netherlands is used to grow bulbs.
The table shows the percentages of this land used to grow the different types of bulbs.

(a)  Work out the value of *x*.

*x* = ..........................................................

**(1)**

The area of land used to grow bulbs for hyacinths is 1200 hectares.

(b)  Work out the area of land used to grow bulbs for daffodils.

.......................................................... hectares

**(2)**

**(Total for question = 3 marks)**

**Q11.**

In January 2007, the population of Canada was 32 million.
7 million of these Canadians spoke French as their first language.

(a) Express 7 million as a percentage of 32 million.
Give your answer correct to 1 decimal place.

........................................................... %

**(2)**

Between January 2007 and January 2009, the population of Canada increased by 4%.

(b) Increase 32 million by 4%.
Give your answer correct to the nearest million.

........................................................... million

**(3)**

**(Total for question is 5 marks)**

**Q12.**

Helen's savings increased from £155 to £167.40
Work out the percentage increase in Helen's savings.

........................................................... %

**(Total for Question is 3 marks)**

**Q14.**

In 2014, Donald's weekly pay was $640
In 2015, Donald's weekly pay was $668.80

(a)  Work out the percentage increase in Donald's pay between 2014 and 2015

 ........................................................... %

**(3)**

In 2015, Donald's weekly pay was 95% of his weekly pay in 2016

(b)  Work out Donald's weekly pay in 2016

$ ...........................................................

**(3)**

**(Total for question = 6 marks)**

**Q15.**

(a)   Work out 40% of 20

...........................................................

**(2)**

Here are four numbers.

0.43        3⁄7        43.8%        7⁄16

(b)   Write these numbers in order of size.
Start with the smallest number.

...........................................................

**(2)**

**(Total for Question is 4 marks)**

**Q16.**

Joseph travels to work each day by train.
 The weekly cost of his train journey is £45
 Joseph's weekly pay is £625

(a) Work out 45 as a percentage of 625

...........................................................%

**(2)**

(b) The weekly cost of his train journey increases by 8%.
Increase £45 by 8%.

£...........................................................

**(3)**

(c) Joseph's weekly pay increases to £640
Calculate the percentage increase from 625 to 640

...........................................................%

**(3)**

(d) Joseph decides to cycle to work.
He cycles 18 km to work.
His journey to work takes 1 hour 20 minutes.

Calculate his average speed in kilometres per hour.

...........................................................km/h

**(3)**

**(Total for question = 11 marks)**

**Q20.**

An airline increases the prices of its flights by 8%.

(a) Before the increase, the price of a flight to Cairo was £475

Work out the price of a flight to Cairo after the increase.

£ ...........................................................

**(3)**

(b) The increase in price of a flight to Mumbai was £48

Work out the price of a flight to Mumbai after the increase.

£ ...........................................................

**(3)**

**(Total for question = 6 marks)**

**Q21.**

(a)  Dilip buys a painting for $ 675

Later, he sells it and makes a percentage profit of 12%.

Work out the price for which Dilip sells the painting.

$ ...........................................................

**(3)**

(b)  Renuka sells her car.

She makes a loss of $ 2162

Her percentage loss is 23%.

Work out the price for which Renuka sells her car.

$ ...........................................................

**(3)**

**(Total for Question is 6 marks)**

**Q22.**

The table shows the cost, in euros, of Brigitte's car insurance in each of the years 2016,
2017 and 2018

Brigitte says,

"The percentage increase in the cost of my car insurance from 2017 to 2018 is more than
the percentage increase in the cost of my car insurance from 2016 to 2017"

(a)  Is Brigitte correct?
You must show how you get your answer.

**(4)**

Henri wants to insure his car.

He gets a discount of 15% off the normal price.
Henri pays 952 euros for his car insurance after the discount.

(b)  Work out the discount that Henri gets.

 ........................................................... euros

**(3)**

**(Total for question = 7 marks)**