



Name:	Class teacher:
π - Unit 2 - Percentages	

Question Number	Skill	Sparx	My Score	Max Score	R	A	G
1	I can express percentages and percentage changes as a decimal, and interpret these multiplicatively	U554		6	0 1 2	3 4	5 6
2	I can find a percentage of a quantity	U554		5	0 1	2 3	4 5
3	I can identify and work with fractions and percentages in problems			5	0 1	2 3	4 5
4	I can solve a percentage change problem given in context			4	0 1	2 3	4
5	I can find the percentage change	U278		3	0 1	2	3
6	I can find the overall percentage change after repeated percentage changes	U773		4	0 1	2 3	4
7	I can solve original value problems	U286		3	0 1	2	3
8	I can calculate simple interest	U533		3	0 1	2	3
9	I can calculate compound interest	U332		6	0 1 2	3 4	5 6
10	I can solve problems with simple and compound interest	U533 U332		6	0 1 2	3 4	5 6

Reflections on Learning

1) What decimal do you multiply a quantity by to:

a) find 60%

.....

[1]

b) find 7.5%

.....

[1]

c) increase a number by 46%

.....

[1]

d) decrease a number by 11%

.....

[1]

e) increase a number by 10.8%

.....

[1]

e) decrease a number by 1.3%

.....

[1]

2)

a) Adam gets a bonus of 32% of £180

Katy gets a bonus of £64.50

Work out the difference between the bonus Adam gets and the
bonus Katy gets.

£.....

[3]

b) Calculate $27\frac{1}{2}\%$ of £98

£.....

[2]

3) Behnaz makes candles.

She buys 5 boxes of wax and uses them all to make candles.

Each box will make 6 candles and costs £25.

Behnaz sells $\frac{2}{5}$ of the candles for £13 each.

She then reduces this price by 20% and sells the rest of the candles.

Work out the total amount of profit Behnaz gets by selling all the candles she made.

£.....

[5]

4) A shop has this special offer:

Reduction of 17% when your bill is between £50 and £100

Reduction of 28% when you bill is more than £100

Before the reductions, Marie's bill is £96 and Richard's bill is £108

After the reductions, who paid more?

You must show your working.

.....

[4]

- 5) The table gives some information about the average price of a litre of petrol in England.

	January 2007	January 2012
Average price of a litre of petrol (pence)	87.3	133.3

Calculate the percentage increase in the average price of a litre of petrol in England between January 2007 and January 2012.

Give your answer correct to 3 significant figures.

.....%

[3]

6) A shop has a sale that offers 20% off all prices.

On the final day they reduce all sale prices by 25%.

Alex buys a hairdryer on the final day.

Work out the overall percentage reduction on the price of the hairdryer.

.....%

[4]

7) Emily spent £2600 on holiday in 2017.

This was 30% more than she spent on holiday in 2016.

Calculate the amount she spent on holiday in 2016.

£.....

[3]

8) Holly invests £3400 for 5 years in a savings account.

She gets 1.5% per year simple interest.

How much money will Holly have in her savings account at the end of 5 years?

£.....

[3]

9) a) Becky buys a new car for £25000

The value of this car will depreciate by 20% at the end of the first year and then by 12% at the end of every year after the first year.

Work out the value of the car at the end of 3 years.

£.....

[3]

b) Simon invested an amount of money in a savings account at 0.5% per annum compound interest.

At the end of 3 years, the amount of money in the savings account was £12180.90

Work out how much money Simon invested in the savings account.

£.....

[3]

10) Here are the interest rates for two bank accounts.

Northern Savings Bank (NSB) 2.5% per year compound interest	Central Alliance Bank (CAB) 2.7% per year simple interest
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Mia puts £6400 in each account.

Calculate the difference in value between the two accounts after 8 years.

Give your answer correct to the nearest penny.

£.....

[6]

GLUE

GLUE

GLUE

GLUE