



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		6	0 1 2	3 4	5 6
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		5	0 1	2 3	4 5

Reflections on Learning

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

a) find 9%

.....

[1]

b) find 20.5%

.....

[1]

c) increase a number by 12%

.....

[1]

d) decrease a number by 7%

.....

[1]

e) increase a number by 80.2%

.....

[1]

f) decrease a number by 21.6%

.....

[1]

2)

a) Andrew is paid £850 a month.

Each month he

spends 60% of his pay

saves the rest.

How many months will it take Andrew to save £1700?

£.....

[4]

b) Calculate $32\frac{1}{2}\%$ of 124cm

.....cm

[2]

3) Nigel bought 12 boxes of melons.

He paid £15 for each box.

There were 12 melons in each box.

Nigel sells $\frac{3}{4}$ of the melons for £1.80 each.

He then reduces this price by 35% and sells the rest of the melons.

Work out the total amount of profit Nigel gets by selling all the melons.

£.....

[5]

4) Two shops, Mega Bathrooms and Bathroom Mart, each have a sale.

Mega Bathrooms	Bathroom Mart
SALE	SALE
16% off the normal price	50% off the amount spent over £1000

Shireen wants to buy some bathroom units.

The units have a normal price of £1500.

Shireen wants to buy them as cheaply as possible.

Which shop should she buy the units from?

You must show your working.

.....

[4]

5) The temperature during one day in Auckland decreases

from 21°C to 17°C.

Calculate the percentage decrease correct to 2 significant figures.

.....%

[3]

6) Kamila sells sandwiches.

In May, she sold some sandwiches.

In June, Kamila sold 20% more sandwiches than in May.

In July, Kamila sold 15% fewer sandwiches than in June.

Calculate the percentage change in her sales from May to July.

.....%

[4]

7) Adam buys a computer.

20% VAT is added to the price of the computer.

Adam has to pay a total of £900.

Work out the price of the computer before VAT is added.

£.....

[3]

8) Jenny invests £8500 for 3 years in a savings account.

She gets 2.3% per year simple interest.

How much money will Jenny have in her savings account at the end of 3 years?

£.....

[3]

9) a) Loren puts £600 in a bank account.

The account pays 3% compound interest each year.

How much will she have in the account after four years?

£..... [3]

b) This motorcycle depreciates by 16% per annum.



After how many whole years will this motorcycle be worth less than £1000 for the first time?

You must show all your working.

..... years [3]

10) Anil wants to invest £25 000 for 3 years in a bank.

<u>Personal Bank</u>	<u>Secure Bank</u>
Simple interest	Compound interest
1.2% each year	2% for the first year
	0.9% for each extra year

Which bank will give Anil the most interest at the end of 3 years?

You must show your working.

.....

GLUE

GLUE

GLUE

GLUE