

Name

Date



PERCENTAGE INCREASE / DECREASE / CHANGE PROBLEMS 1

UK VERSION

Find the percentage increases, decreases and changes.

Working out

- 1) I buy a rare coin for £1,400.
I sell it a few years later for £1,820.



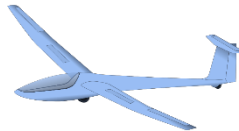
What is my percentage profit?

- 2) A car priced at £28,000 is reduced
by 15% in a sale.



What is the new price?

- 3) A glider is flying at 2,000 ft.
Its height increases by 35% as
it rises in the thermals.



What is the new height?

- 4) Captain has a speaker with an output
of 60 watts. He gets a new speaker
which has a 12% more powerful.



What is the output of his new speaker?

- 5) Tyger can type at 36 words per minute.
After a touch typing course, he can type at 45 words
per minute.

What is the percentage change?

- 6) Quadra has a torch with a 50 lumen
output.
Sally's torch is 65% brighter.



What is the output of Sally's torch?

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PERCENTAGE INCREASE / DECREASE / CHANGE PROBLEMS

SHEET 1 ANSWERS UK VERSION

Find the percentage increases, decreases and changes.

		Working out
1)	I buy a rare coin for £1,400. I sell it a few years later for £1,820.	$1820 - 1400 = 420$ $420 \div 1400 = 0.3$ $0.3 \times 100 = 30\%$
	<i>What is my percentage profit?</i>	30% profit
2)	A car priced at £28,000 is reduced by 15% in a sale.	$15\% \text{ of } £28,000 = £4,200$ $£28,000 - £4,200 = £23,800$
	<i>What is the new price?</i>	The new price is £23,800
3)	A glider is flying at 2,000 ft. It height increases by 85% as it rises in the thermals.	$85\% \text{ of } 2,000 = 1700$ $2,000 + 1,700 = 3,700$
	<i>What is the new height?</i>	3,700 ft
4)	Captain has a speaker with an output of 60 watts. He gets a new speaker which is 45% more powerful.	$45\% \text{ of } 60 = 27$ $60 + 27 = 87$
	<i>What is the output of his new speaker?</i>	The output is 87 watts
5)	Tyger can type at 36 words per minute. After a touch typing course, he can type at 45 words per minute.	$45 - 36 = 9$ $9 \div 36 = 0.25$ $0.25 \times 100 = 25\%$
	<i>What is the percentage change?</i>	25% increase
6)	Quadra has a torch with a 50 lumen output. Sally's torch is 65% brighter.	$65\% \text{ of } 50 = 32.5$ $50 + 32.5 = 82.5$
	<i>What is the output of Sally's torch?</i>	The output is 82.5 lumens.