

# NUMBER: percentage increases

(Given an amount after a specific percentage increase, calculate the original amount)

**Date:** \_\_\_\_\_ **Name:** \_\_\_\_\_ <http://www.learnersgrid.com>

*Solve the percentage increase problems below. Round answers to 2 d.p.*

[1] After adding a 9% sales tax, the new price for a small gift is \$16.

Give the original price of the small gift (i.e. BEFORE adding the sales tax).

[2] After adding 23% postage & handling costs, the total cost of a pair of shoes from an online store is \$23.

Give the original price of the pair of shoes from the online store (i.e. BEFORE adding p&h costs).

[3] The price of a theatre ticket goes up by 6% to a higher price of \$41.

Give the original price of the theatre ticket (i.e. BEFORE the increase).

[4] The cost of hiring a digger goes up to a higher price of \$150 per hour.

This is a 6% increase in cost per hour.

Give the original cost per hour for hiring the digger (i.e. BEFORE adding the increase).

[5] The price of a car goes up by 17% to \$11556.

What was the price before?

[6] Calculate the original price of an article which costs \$285 after an increase of 73% .

[7] Calculate the original price of an article which costs \$170 after an increase of 91%

[8] Calculate the original price of an article which costs \$554 after an increase of 26%

**[9]** After an increase of 7% an item costs \$17.

What did this item cost before the increase?

# ANSWERS

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*Solve the percentage increase problems below. Round answers to 2 d.p.*

- [1] After adding a 9% sales tax, the new price for a small gift is \$16.

Give the original price of the small gift (i.e. BEFORE adding the sales tax).

= \$ 14.68

- [2] After adding 23% postage & handling costs, the total cost of a pair of shoes from an online store is \$23.

Give the original price of the pair of shoes from the online store (i.e. BEFORE adding p&h costs).

= \$ 18.70

- [3] The price of a theatre ticket goes up by 6% to a higher price of \$41.

Give the original price of the theatre ticket (i.e. BEFORE the increase).

= \$ 38.68

- [4] The cost of hiring a digger goes up to a higher price of \$150 per hour.

This is a 6% increase in cost per hour.

Give the original cost per hour for hiring the digger (i.e. BEFORE adding the increase).

= \$ 141.51

- [5] The price of a car goes up by 17% to \$11556.

What was the price before?

= \$ 9876.92

- [6] Calculate the original price of an article which costs \$285 after an increase of 73%.

= \$ 164.74

- [7] Calculate the original price of an article which costs \$170 after an increase of 91%

= \$ 89.01

- [8] Calculate the original price of an article which costs \$554 after an increase of 26%

= \$ 439.68

**[9]** After an increase of 7% an item costs \$17.

What did this item cost before the increase?

= \$ 15.89