

NUMBER: percentage changes

(Given an amount after a specific percentage change, 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 10% sales tax, the new price for a restaurant breakfast is \$22.

Give the original price of the restaurant breakfast (i.e. BEFORE adding the sales tax).

[2] After adding 18% postage & handling costs, the total cost of a pair of shoes from an online store is \$17.

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 movie ticket goes up by 6% to a higher price of \$42.

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

[4] The cost of hiring a bulldozer goes up to a higher price of \$129 per hour.

This is a 9% increase in cost per hour.

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

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

[5] The price of a boat goes down by 11% to \$6158

What was the price before?

[6] Calculate the original price of an article which costs \$521 after a decrease of 49%

[7] Calculate the original price of an article which costs \$217 after a discount of 78%

[8] Calculate the original price of an article which costs \$620 after a discount of 38%

[9] After a decrease of 16% an item costs \$25

What did this item cost before the drop in price?

ANSWERS

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

- [1] After adding a 10% sales tax, the new price for a restaurant breakfast is \$22.

Give the original price of the restaurant breakfast (i.e. BEFORE adding the sales tax).

$$= \$ 20.00$$

- [2] After adding 18% postage & handling costs, the total cost of a pair of shoes from an online store is \$17.

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

$$= \$ 14.41$$

- [3] The price of a movie ticket goes up by 6% to a higher price of \$42.

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

$$= \$ 39.62$$

- [4] The cost of hiring a bulldozer goes up to a higher price of \$129 per hour.

This is a 9% increase in cost per hour.

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

$$= \$ 118.35$$

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

- [5] The price of a boat goes down by 11% to \$6158

What was the price before?

$$= \$ 6919.10$$

- [6] Calculate the original price of an article which costs \$521 after a decrease of 49%

$$= \$ 1021.57$$

- [7] Calculate the original price of an article which costs \$217 after a discount of 78%

$$= \$ 986.36$$

- [8] Calculate the original price of an article which costs \$620 after a discount of 38%

$$= \$ 1000.00$$

[9] After a decrease of 16% an item costs \$25

What did this item cost before the drop in price?

= \$ 29.76