



**THIRD SPACE  
LEARNING**

# Percent Increase and Decrease Worksheet

Ratio and Proportion

**Grades 6 to 8**

## Skill Questions

Name: .....

Date: .....

1 Increase 300 by 25%.

Answer

2 Decrease 450 by 15%.

Answer

3 Write an equation to represent an increase of 6% to  $x$ .

Answer

4 Write an equation to represent an decrease of 18% to  $x$ .

Answer

5 What is the percent increase from 120 to 150?

Answer

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6 What is the percent decrease from 150 to 120?

Answer

7 A laptop was originally priced at \$500, but the store raised the price to \$575. What is the percent increase in the price of the laptop?

Answer

8 Maria's salary last year was \$45,000. This year, her salary increased by 5%. What is her new salary?

Answer

9 A jacket was originally priced at \$80, but it is now on sale for \$62. What is the percent decrease in the price of the jacket?

Answer

10 A city had a population of 500,000 people, but this year the population decreased by 8%. What is the new population of the city?

Answer

## Applied Questions

- 11 A store is having a sale where all items are 30% off. Sarah wants to buy a sweater that costs \$55.99 and a hat that costs \$22.30. How much will Sarah pay for both items after the discount, before taxes?

Answer

- 12 Genesis was calculating the percent change. She wrote the equation  $\frac{(340 - 300)}{300} \times 100$ . Explain each part of Genesis' equation.

Answer

- 13 A local store is selling tickets for a raffle. Each ticket costs \$5. The store donates 10% of the proceeds to a charity. If they sell 270 tickets, how much money will the store keep for itself?

Answer

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- 14 Sam's total at the electronics store is \$89.65. He uses his membership card to get 8% off his purchase. After that, he applies a coupon that gives him an additional 30% off the discounted price. How much will Sam pay in the end?

*Answer*

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- 15 A bookstore sold 95 books during the weekend. At the end of the weekend, the bookstore had 230 books left in stock. What was the percent change in the number of books over the weekend? Round to the nearest whole number.

*Answer*

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## Answers

Question number	Question	Answers	Standard
1	Increase 300 by 25%.	375	7.RP.A.3
2	Decrease 450 by 15%.	382.5	7.RP.A.3
3	Write an equation to represent an increase of 6% to $x$ .	$x + 0.06x$ OR $1.06x$	7.RP.A.3
4	Write an equation to represent a decrease of 18% to $x$ .	$x - 0.18x$ OR $0.82x$	7.RP.A.3
5	What is the percent increase from 120 to 150?	25%	7.RP.A.3
6	What is the percent decrease from 150 to 120?	20%	7.RP.A.3
7	A laptop was originally priced at \$500, but the store raised the price to \$575. What is the percent increase in the price of the laptop?	15%	7.RP.A.3
8	Maria's salary last year was \$45,000. This year, her salary increased by 5%. What is her new salary?	\$47,250	7.RP.A.3
9	A jacket was originally priced at \$80, but it is now on sale for \$62. What is the percent decrease in the price of the jacket?	22.5%	7.RP.A.3

## Percent Increase and Decrease Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
10	A city had a population of 500,000 people, but this year the population decreased by 8%. What is the new population of the city?	460,000	7.RP.A.3
11	A store is having a sale where all items are 30% off. Sarah wants to buy a sweater that costs \$55.99 and a hat that costs \$22.30. How much will Sarah pay for both items after the discount, before taxes?	\$54.80	7.RP.A.3
12	Genesis was calculating the percent change. She wrote the equation $\frac{(340-300)}{300} \times 100$ . Explain each part of Genesis' equation.	Answers will vary. Example answer: The numerator, (340 – 300), shows the difference between the original and the new value (the change). The denominator, 300, is the original value and multiplying it by 100 changes the ratio to a percent.	7.RP.A.3
13	A local store is selling tickets for a raffle. Each ticket costs \$5. The store donates 10% of the proceeds to a charity. If they sell 270 tickets, how much money will the store keep for itself?	\$1,215	7.RP.A.3
14	Sam's total at the electronics store is \$89.65. He uses his membership card to get 8% off his purchase. After that, he applies a coupon that gives him an additional 30% off the discounted price. How much will Sam pay in the end?	\$57.73	7.RP.A.3

## Percent Increase and Decrease Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
15	A bookstore sold 95 books during the weekend. At the end of the weekend, the bookstore had 230 books left in stock. What was the percent change in the number of books over the weekend? Round to the nearest whole number.	29%	7.RP.A.3






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-  [thirdspacelearning.com/us/](https://thirdspacelearning.com/us/)
-  (929) 298-4593
-  [hello@thirdspacelearning.com](mailto:hello@thirdspacelearning.com)



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