

Grade 7 · Percent Increase, Percent Decrease and Percent Error · Worksheet

Common Core 7.RP.A.3 · mathovore.fr

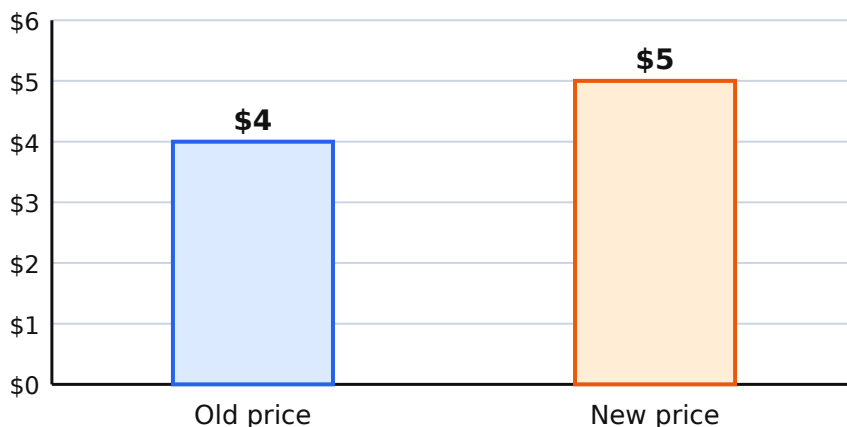
Name: _____ Date: ____/____/____ Score: _____

These 20 problems practice standard 7.RP.A.3 applied to percent change: finding a percent increase or decrease, computing a new amount, working backward to the original amount, and measuring percent error. The first problems use one step; the last six combine several steps in shopping, population and pricing situations.

Grade 7 Common Core: 7.RP.A.3

Problem 1: Percent increase

A school store raised the price of a notebook from \$4.00 to \$5.00. Find the percent increase.



Old and new notebook prices.

Problem 2: Gas price drop

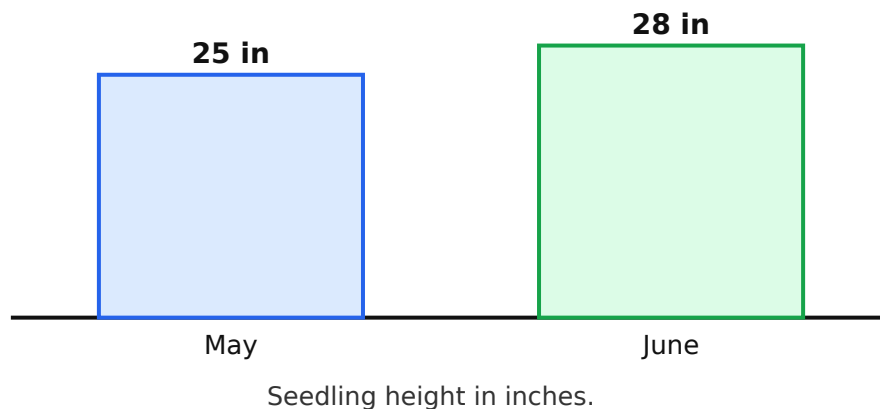
The price of gas at a station near the Little League field fell from \$4.00 to \$3.60 per gallon. Find the percent decrease.

Problem 3: Percent decrease

A water tank held 50 gallons on Monday and 40 gallons on Friday. Find the percent decrease.

Problem 4: Growth of a seedling

A tomato seedling at the school garden was 25 inches tall in May and 28 inches tall in June. Find the percent increase in its height.

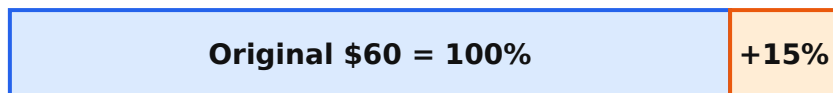


Problem 5: Falling attendance

Last Saturday, 250 fans watched a Little League game. This Saturday, 215 fans came. Find the percent decrease in attendance.

Problem 6: Price after a raise

A farmers market stand sells a crate of peaches for \$60. The price rises by 15%. Find the new price.



The new price is 115% of \$60.

Problem 7: New monthly fee

Jamal's music app costs \$14.00 per month. The company raises the fee by 25%. Find the new monthly fee.

Problem 8: Time after a decrease

Priya's bus ride takes 90 minutes. A new express route cuts the time by 30%. Find the new ride time.

Problem 9: Sale price

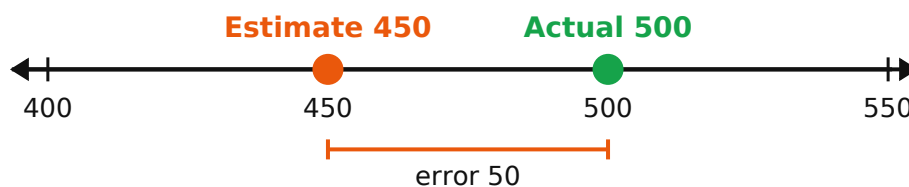
A jacket regularly costs \$85 and is on sale for 20% off. Find the sale price.



Price tag for the jacket.

Problem 10: Estimate error

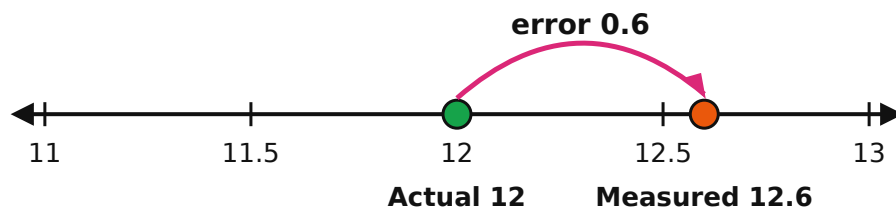
Before the fair opened, Diego estimated that 450 people would attend. The actual attendance was 500. Find the percent error of his estimate.



Estimated and actual attendance.

Problem 11: Percent error

Liam measured the length of a table as 12.6 ft. The actual length is 12 ft. Find the percent error.



Measured and actual lengths.

Problem 12: Find the original

After a 20% increase, a gym membership costs \$60 per month. Find the original monthly price.

New price = 120% = \$60

Original = 100%	+20%
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The new price is 120% of the original.

Problem 13: Price before the sale

Sofia paid \$68 for a pair of boots that were on sale for 15% off. Find the regular price of the boots.

Problem 14: Which rose more?

The price of a movie ticket at Theater A rose from \$30 to \$36. At Theater B, a similar ticket rose from \$50 to \$58. The table shows the prices.

Theater	Old price	New price
A	\$30	\$36
B	\$50	\$58

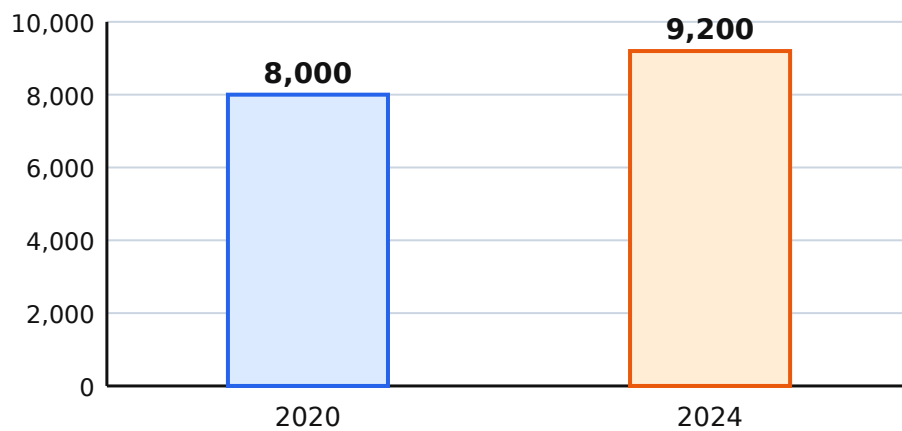
Ticket prices.

- Find the percent increase at each theater.
- Decide which theater had the greater percent increase. Explain why it is not the one with the larger dollar increase.

Problem 15: Population change

Mei's town had 8,000 residents in 2020 and 9,200 residents in 2024.

- Find the percent increase from 2020 to 2024.
- The population then falls by 10% by 2028. Find the 2028 population.

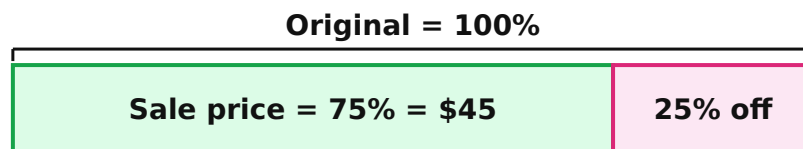


Town population.

Problem 16: Discount and tax

The sale price of a pair of sneakers is \$45 after a 25% discount.

- Find the original price.
- Sales tax is 8% of the sale price. Find the total cost.



The sale price is 75% of the original.

Problem 17: Up then down

A trading card is worth \$40. Its value rises by 50%, and later the new value falls by 50%.

- Find the value after the rise.
- Find the value after the fall.
- Find the overall percent change from the original \$40.



The two changes in order.

Problem 18: Markup and discount

A shop buys a skateboard for \$24 and marks up the price by 75%. During a sale the marked price is reduced by 20%.

- Find the marked price.
- Find the sale price.
- The sale price is what percent greater than the \$24 cost?

Problem 19: Two years of growth

A town has 5,000 residents. Its population grows by 20% in the first year and by 10% of the new population in the second year.

- Find the population after each year.
- Find the overall percent increase over the two years.
- Priya says the overall increase is 30%. Explain her mistake.



Each change applies to the population before it.

Problem 20: Bookstore markup

A bookstore buys a novel for \$8 and sells it for \$14.

- Find the markup as a percent of the cost.
- Later the selling price is reduced by 30%. Find the reduced price.
- The reduced price is what percent greater than the \$8 cost?