

GRADE 7

Percentages

Complete Percentage Practice Pack

6 Worksheets • Conversions • Increase & Decrease • Discounts • Tax • Reasoning

Worksheet 1 — Percentage Basics & Conversions

Instructions: Show your working. Give percentage answers with the % sign and check whether your result is reasonable.

1. Convert 35% to a fraction in simplest form.
2. Convert 0.72 to a percentage.
3. Convert $\frac{5}{8}$ to a percentage.
4. Find 18% of 250.
5. Find 35% of 480.
6. 42 is what percentage of 120?
7. What percentage of 80 is 14?
8. A class has 32 students and 75% attend a trip. How many attend?

Answer Key — Percentage Basics & Conversions

1. $\frac{7}{20}$.
2. 72%.
3. 62.5%.
4. 45.
5. 168.
6. 35%.
7. 17.5%.
8. 24 students.

Worksheet 2 — Finding the Whole & Missing Values

Instructions: Show your working. Give percentage answers with the % sign and check whether your result is reasonable.

1. 24 is 30% of what number?
2. 45 is 15% of what number?
3. 72 is 40% of what number?
4. 18 students are 60% of a class. How many students are in the class?
5. A price after a 20% discount is \$64. What was the original price?
6. A student scored 84 marks, which is 70% of the total. Find the total.
7. 27% of a number is 54. Find the number.
8. A tank is 65% full and contains 1,300 L. What is its full capacity?

Answer Key — Finding the Whole & Missing Values

1. 80.
2. 300.
3. 180.
4. 30 students.
5. \$80.
6. 120 marks.
7. 200.
8. 2,000 L.

Worksheet 3 — Percentage Increase & Decrease

Instructions: Show your working. Give percentage answers with the % sign and check whether your result is reasonable.

1. Increase \$240 by 15%.
2. Decrease \$600 by 18%.
3. A population of 8,000 increases by 12%. Find the new population.
4. A jacket priced at \$150 is reduced by 25%. Find the sale price.
5. A phone price rises from \$500 to \$575. Find the percentage increase.
6. A quantity falls from 800 to 680. Find the percentage decrease.
7. A salary of \$2,400 is increased by 8%, then by another 5%. Find the final salary.
8. A price is reduced by 20% and then increased by 20%. Is the final price equal to the original? Demonstrate with \$250.

Answer Key — Percentage Increase & Decrease

1. \$276.
2. \$492.
3. 8,960.
4. \$112.50.
5. 15%.
6. 15%.
7. \$2,721.60.
8. No. $\$250 \times 0.8 \times 1.2 = \240 .

Worksheet 4 — Discounts, Tax & Real-Life Percentages

Instructions: Show your working. Give percentage answers with the % sign and check whether your result is reasonable.

1. A \$120 item has a 15% discount. Find the discount and sale price.
2. A \$250 purchase has 8% sales tax. Find the tax and total.
3. A \$480 item is discounted by 25%, then taxed at 10% on the sale price. Find the final price.
4. A restaurant bill is \$80. A 12.5% service charge is added. Find the total before tax.
5. A bicycle originally costs \$640. It is on sale for \$544. Find the percentage discount.
6. A \$900 laptop is discounted by 18%. A further \$50 coupon is applied. Find the final price.
7. A shop marks an item up by 30% from \$200 and then gives a 10% discount on the marked price. Find the final price.
8. A bill of \$150 includes 20% tax. What was the price before tax?

Answer Key — Discounts, Tax & Real-Life Percentages

1. Discount \$18; sale price \$102.
2. Tax \$20; total \$270.
3. Sale price \$360; tax \$36; final \$396.
4. \$90.
5. 15%.
6. \$688.
7. \$234.
8. \$125.

Worksheet 5 — Percentages in Data & Comparisons

Instructions: Show your working. Give percentage answers with the % sign and check whether your result is reasonable.

1. In a survey of 400 students, 35% prefer basketball. How many?
2. A school has 720 students. 45% are in Grade 7. How many?
3. Sales rise from \$4,000 to \$4,600. Find the percentage increase.
4. A test score rises from 64 to 80. Find the percentage increase.
5. A population falls from 25,000 to 22,500. Find the percentage decrease.
6. In a class of 40, 26 submit homework on time. What percentage is that?
7. 62.5% of 160 people chose option A. How many?
8. Two shops discount a \$500 item: Shop A gives 20% off; Shop B gives \$90 off. Which price is lower, and by how much?

Answer Key — Percentages in Data & Comparisons

1. 140 students.
2. 324 students.
3. 15%.
4. 25%.
5. 10%.
6. 65%.
7. 100 people.
8. Shop A: \$400; Shop B: \$410. Shop A is \$10 lower.

Worksheet 6 — Percentage Challenge

Instructions: Show your working. Give percentage answers with the % sign and check whether your result is reasonable.

1. A price is increased by 25% and becomes \$150. Find the original price.
2. After a 15% discount, an item costs \$204. Find its original price.
3. A number is increased by 30% and then decreased by 30%. If the original is 500, find the final number and percentage change.
4. A school has 800 students. 55% are girls. 20% of the girls join a science club. How many girls join?
5. A shop buys an item for \$320, marks it up by 40%, then discounts the marked price by 15%. Find the selling price.
6. A population increases from 24,000 to 27,600. If the same percentage increase happens again, what is the new population?
7. A student gets 72% on a 50-question test. How many correct and incorrect?
8. One value changes 250→325 and another 400→500. Which has greater percentage increase?

Answer Key — Percentage Challenge

1. \$120.
2. \$240.
3. Final 455; overall decrease 9%.
4. 88 girls.
5. \$380.80.
6. 31,740.
7. 36 correct; 14 incorrect.
8. First: 30%; second: 25%. The first is greater.