

PERCENTAGES IN REAL LIFE

PRINTABLE MATHS ACTIVITY PACK

SHOPPING • DISCOUNTS • BUDGETS • DATA • PROBLEM SOLVING

Make percentages meaningful with practical, everyday maths challenges.

WHAT STUDENTS PRACTISE	REAL-LIFE CONTEXTS
Finding percentages	Shopping & discounts
Percentage of a quantity	Budgets & saving
Percentage increase/decrease	Tax & tips
Comparing percentages	Sports & data
Reverse percentage thinking	Recipes & surveys
Reasoning & problem solving	Mixed challenges

Suggested level: Grades 5–8 • Ages 10–14

Name: _____ Date: _____

1. Percentage Basics

Build confidence by finding percentages of familiar quantities.

A. Find each percentage.

1. 10% of 80 = _____

2. 25% of 60 = _____

3. 50% of 94 = _____

4. 20% of 150 = _____

5. 5% of 200 = _____

6. 75% of 40 = _____

7. 30% of 90 = _____

8. 15% of 200 = _____

B. Write each as a percentage.

9. 0.4 = _____% 10. 0.65 = _____% 11. 0.08 = _____% 12. 1.25 = _____%

C. Challenge

13. 40% of a number is 28. What is the number? _____

14. 15% of a number is 12. What is the number? _____

2. Shopping & Discounts

Use percentages to calculate discounts and sale prices.

A. Find the discount and sale price.

Item	Original Price	Discount	Discount Amount	Sale Price
Backpack	\$40.00	25%	_____	_____
Headphones	\$60.00	20%	_____	_____
Sports shoes	\$80.00	15%	_____	_____
Board game	\$32.00	10%	_____	_____
Jacket	\$50.00	30%	_____	_____

B. Which is the better deal?

6. Store A sells a \$70 game at 20% off. Store B sells the same game for \$54. Which store is cheaper, and by how much? _____

7. A \$120 bicycle is reduced by 25%. What is the sale price? _____

8. A \$45 book has a 10% discount. What is the sale price? _____

3. Budget Challenge

Plan spending while working within a fixed budget.

You have a **\$100 budget** for a weekend activity. Use the information below.

Activity/Item	Cost
Museum ticket	\$18
Lunch	\$14
Movie ticket	\$12
Transport	\$10
Souvenir	\$8
Game/Activity	\$15

1. What is the total cost if you buy everything? _____
2. What percentage of the \$100 budget would the museum ticket use? _____%
3. After buying the museum ticket, lunch and transport, how much money remains? _____
4. What percentage of the original budget remains after those three purchases? _____%
5. You decide to save 20% of the \$100 budget. How much can you spend? _____
6. Create a different plan that spends exactly \$80. List the items you choose.

4. Tax, Tips & Final Cost

Apply percentages to real-world bills.

For this worksheet, use a **10% sales tax** unless another rate is given.

1. A game costs \$25. What is the tax? _____ What is the final cost? _____
2. A jacket costs \$48. What is the tax? _____ What is the final cost? _____
3. A family meal costs \$72. A 15% tip is added. What is the tip? _____ Total? _____
4. A café bill is \$36. Add a 10% tip. What is the total? _____
5. A bicycle costs \$250 before tax. Add 10% tax. What is the final price? _____
6. A meal costs \$80. A 15% tip is added, then 10% tax is added to the original meal price. What is the total?

7. Explain why a 10% tax and a 10% discount do not always cancel each other out.

5. Saving & Spending

Use percentages to make simple financial decisions.

1. Jordan receives \$40 and saves 25%. How much is saved? _____ How much can be spent? _____
2. Mia has \$80 and saves 30%. How much does she save? _____
3. A student saves 15% of a \$60 weekly allowance. How much is saved each week? _____
4. A savings goal is \$200. A student has saved 65% of the goal. How much has been saved? _____
5. How much more is needed to reach the goal? _____
6. A family reduces its weekly entertainment spending from \$50 to \$42. What percentage decrease is this?
_____ %
7. A student says, "If I save 20% of \$100 each month, I will save \$240 in a year." Is the statement correct? Explain.

6. Percentage Increase & Decrease

Calculate changes in quantities and explain what the percentage means.

Find the new amount.

1. A \$40 item increases by 10%. New price: _____
2. A \$90 item decreases by 20%. New price: _____
3. A town's population of 5,000 increases by 5%. New population: _____
4. A plant is 20 cm tall and grows by 25%. New height: _____ cm
5. A score of 80 increases by 15%. New score: _____
6. A water tank contains 200 L and its amount decreases by 30%. How much remains? _____ L
7. A price changes from \$50 to \$60. What is the percentage increase? _____ %
8. A price changes from \$80 to \$68. What is the percentage decrease? _____ %

7. Sports & Statistics

Use percentages to interpret performance data.

Player	Games Won	Games Played	Win %
Alex	12	20	_____
Sam	15	20	_____
Riley	9	15	_____
Taylor	18	24	_____

1. Complete the win percentages.
2. Who has the highest win percentage? _____
3. Who has the lowest win percentage? _____
4. A team played 30 games and won 60%. How many games did it win? _____
5. A player scored 18 goals from 24 attempts. What percentage of attempts were successful? _____%
6. A basketball player made 21 out of 30 free throws. What was the success rate? _____%
7. Explain why a percentage can sometimes be more useful than the number of wins alone.

8. Surveys & Data

Turn survey results into percentages and use them to make conclusions.

Favourite activity	Students	Percentage
Reading	8	_____
Sport	12	_____
Drawing	5	_____
Gaming	10	_____
Music	5	_____

There are 40 students in the survey.

1. Complete the percentage column.
2. Which activity is most popular? _____
3. What percentage chose Reading or Drawing altogether? _____%
4. How many students would you expect to choose Sport in a group of 100 students if the same pattern continued? _____
5. Write one conclusion supported by the data.

9. Recipes & Percentages

Use percentages to scale quantities and solve practical problems.

A recipe uses 400 g of flour.

1. Increase the recipe by 25%. How much flour is needed? _____ g
2. Reduce the recipe by 10%. How much flour is needed? _____ g
3. A recipe needs 200 mL of milk. You make 150% of the recipe. How much milk is needed? _____ mL
4. A recipe uses 80 g of sugar. You have only 75% of the amount needed. How much sugar do you have? _____ g
5. A class recipe uses 600 g of ingredients. 20% is fruit. How many grams of fruit are used? _____ g
6. A recipe for 8 people uses 500 g of pasta. What percentage increase is needed to make enough for 10 people? _____ %
7. Explain why increasing a recipe by 25% means multiplying the quantity by 1.25.

10. Percentage Detective

Use clues to find missing values and justify your reasoning.

1. I am a percentage between 20% and 40%. I am a multiple of 5. I am greater than 30%. Who am I?

2. 25% of my number is 18. What is my number? _____

3. My original price was \$80. After a discount, the price is \$60. What percentage discount was given?
_____ %

4. A number is increased by 20% and becomes 96. What was the original number? _____

5. I spent 35% of my \$200 budget. How much did I spend? _____

6. A class has 32 students. 75% completed the homework. How many students completed it? _____

7. Find a percentage that is equivalent to $\frac{3}{5}$. _____

8. Create your own percentage mystery clue and solve it.

11. Mixed Real-Life Challenge

Bring together your percentage skills.

1. A \$75 backpack is 20% off. What is the sale price?
2. A \$50 item has 8% sales tax. What is the final price?
3. A student saves 35% of \$80. How much is saved?
4. A school has 600 students. 45% participate in a club. How many students is that?
5. A score rises from 64 to 80. What is the percentage increase?
6. A \$120 jacket falls to \$90. What is the percentage decrease?
7. A restaurant bill is \$48 and a 15% tip is added. What is the total?
8. A survey of 200 people shows that 62% prefer option A. How many people is that?
9. A recipe needs 300 g of flour. Increase it by 20%. How much is needed?
10. A student says 30% of 90 is 27. Is the student correct? Explain.

12. Percentage Challenge Cards

Use these as warm-ups, partner tasks, exit tickets or early-finisher challenges.

Card	Challenge
A	Find 15% of \$80.
B	A \$60 item is 25% off. Find the sale price.
C	What percentage is 0.35?
D	A \$40 bill has a 10% tip. Find the total.
E	Find 75% of 64.
F	A price rises from \$50 to \$55. Find the percentage increase.
G	A price falls from \$80 to \$60. Find the percentage decrease.
H	What is 20% of 350?
I	25% of a number is 20. Find the number.
J	A class of 28 has 75% completing a task. How many students?
K	Convert $\frac{3}{4}$ to a percentage.
L	Give one real-life situation where percentages are useful.

Teacher tip: Encourage students to explain their method, not just give the answer.

ANSWER KEY

Answers for Pages 1–6.

Page	Answers
1	1) 8 2) 15 3) 47 4) 30 5) 10 6) 30 7) 27 8) 30 9) 40% 10) 65% 11) 8% 12) 125% 13) 70 14) 80
2	1) \$10, \$30 2) \$12, \$48 3) \$12, \$68 4) \$3.20, \$28.80 5) \$15, \$35 6) Store B, by \$2 7) \$90 8) \$40.50
3	1) \$92 2) 18% 3) \$58 4) 58% 5) \$80 spending limit 6) Answers vary; any valid combination totaling \$80.
4	1) \$2.50, \$27.50 2) \$4.80, \$52.80 3) \$10.80, \$82.80 4) \$39.60 5) \$275 6) \$100 7) A discount reduces the base while tax increases the base.
5	1) \$10 saved, \$30 spent 2) \$24 3) \$9 4) \$130 5) \$70 6) 16% 7) No. $\$20 \text{ per month} \times 12 = \240 , so the statement is correct.
6	1) \$44 2) \$72 3) 5,250 4) 25 cm 5) 92 6) 140 L 7) 20% 8) 15%

ANSWER KEY

Answers for Pages 7–12.

Page	Answers
7	Alex 60%; Sam 75%; Riley 60%; Taylor 75%. Highest: Sam and Taylor. Lowest: Alex and Riley. 4) 18 games 5) 75% 6) 70%
8	Reading 20%; Sport 30%; Drawing 12.5%; Gaming 25%; Music 12.5%. 2) Sport 3) 32.5% 4) 30 students 5) Answers vary if
9	1) 500 g 2) 360 g 3) 300 mL 4) 60 g 5) 120 g 6) 25% 7) Multiply by 1.25 because $100\% + 25\% = 125\% = 1.25$.
10	1) 35% 2) 72 3) 25% 4) 80 5) \$70 6) 24 students 7) 60% 8) Answers vary.
11	1) \$60 2) \$54 3) \$28 4) 270 students 5) 25% 6) 25% 7) \$55.20 8) 124 people 9) 360 g 10) Yes; 30% of 90 = 27.
12	A) \$12 B) \$45 C) 35% D) \$44 E) 48 F) 10% G) 25% H) 70 I) 80 J) 21 students K) 75% L) Answers vary.

Marketplace positioning: A practical percentage resource for upper-primary and middle-school learners. Suitable for classroom practice, homework, tutoring, revision, maths centres and independent learning.