Grade 6 Math · Lesson 8 — The Party Budget

Percents, finding the whole and percent change · ages 10 to 13 · 45 minutes · the workbook, one screen, this page, a pencil and paper

At a Glance

- **The book:** 6th Grade Math Workbook: Real-World Problem Solving, Chapter 8 (The Event Planner), by Dr. Gene A Constant.
- **Free tool:** Percent Power (tips, tax and discounts), free, no login, plays in the browser: globalsovereignuniversity.org/percent-power.
- **Ages and time:** Grade 6 · ages 10 to 13 · 45 minutes.
- **Prep (5 min):** read the Teaching Creed and have the workbook open to Chapter 8. Find a store receipt, a restaurant bill or a sale flyer.

Why this lesson

Percent means per hundred. It lets a child see at once whether a $50 change matters on a $200 bill or a $2,000 one. Percents run every deposit, tip, tax and sale. A child who is quick with them catches overcharges and spots a fake bargain.

What the learner will be able to do

- Change a percent to a decimal.
- Find a percent of a number.
- Find the whole when they know a part and its percent.
- Find a percent increase or decrease from the original amount.

The 45-Minute Climb

How to read this: the gold box in each step is your lesson, word for word. Run it as written. The notes beneath are optional support. "The group" means your family; "host" means you.

1 · The Hook (5 min)

"A store says 25% off a $120 jacket. Another store sells it for $95. Which is cheaper?"

Say it like this: Let your child work it out: 25% of 120 is 30, so the sale price is $90. The sale is $5 cheaper.

2 · Work It Together (15 min)

Open the workbook to A Venue Deposit and read it aloud: 0.20 × 4,500 = 900. Then read Counting the Guests: 12 ÷ 0.15 = 80. Finish with An Early-Bird Price: −20 ÷ 80 = −25%.

Use the real receipt: find the tax rate or a discount on it. Then play one round of Percent Power.

3 · The Talk (8 min)

1. Why do we divide by the original amount, not the new one, for percent change? 2. Can a percent be more than 100%? 3. A $180 deposit is 30% of the total. Why divide 180 by 0.30?

You are not fishing for one right answer. You are listening for understanding:

- Q1: Percent change measures the change compared with where you started.
- Q2: Yes. 125% of 60 is 75, more than the whole 60.
- Q3: Because 0.30 times the total is 180, so the total is 180 ÷ 0.30.

4 · Solo Climb (12 min)

Five problems on your own, with your work shown.
1. A caterer adds an 18% gratuity to a $2,400 bill. How much is the gratuity?
2. A 15% tip was $22.50. What was the bill before the tip?
3. A price goes from $50 to $65. Find the percent change.
4. A client's budget is $15,000 and she has spent $10,500. What percent of the budget is left?
5. A $20,000 budget is split: venue 35%, catering 40%, photography 15%, other 10%. Find each dollar amount.

Why solo: a test, a job and real life ask you to work alone. Five problems rehearse exactly that. The answers are at the end of this plan.

Keep It Fresh (5 min, the next day)

Two review problems from earlier chapters.
1. Solve: 7y = 91
2. A figure with an area of 20 sq cm is enlarged by a scale factor of 3. Find the new area.

Ready to move on? Four of the five Solo Climb problems right, with work shown, means this skill is solid. If not, reread the worked examples together and try two more problems from the chapter before the next lesson. Short review of old skills keeps them from fading.

5 · The Takeaway (5 min)

"Percent means per hundred. Part = percent × whole, and percent change always starts from the original." · Homework: Plan a small family party with a $100 budget. Split it by percents and show the dollars for each part.

The badge moment: finishing all five steps earns the Bronze ring of this lesson's badge, The Planner. Mark it on the Climber's Passport now; the homework is how Silver and Gold are earned during the week.

Common Mistakes to Watch For

- Writing 8% as 0.8 instead of 0.08.
- Dividing by the new amount when finding percent change.
- Adding a discount instead of subtracting it.

The Teaching Creed

You are not the expert; the book and the method are. Your job is to ask "how do you know?" one more time than feels natural, and to celebrate wrong answers out loud. In here, a wrong answer is where the lesson lives.

GENO, GSU's free tutor, can explain any step a second way, any hour, in 83 languages, with no login: globalsovereignuniversity.org/free-tutor. A prompt for the host: Ask GENO: "My child found the percent increase from $50 to $65 as 23%. Help them find the mistake without giving the answer."

Adapt It and Measure It

Differentiation

- Struggling: start with 10%, 25% and 50% only, using money.
- Ahead: compare two caterers where one adds a service charge.
- Large co-op: teams plan an event budget and present it.
- Reluctant: let the child plan their own birthday budget.

Evidence of learning (no exam)

Look for three things. **Tried**: finished all five Solo Climb problems with work shown. **Noticed**: can name the mistake in Common Mistakes that they almost made. **Changed**: the next day, solves one new problem from the same chapter without help. Those three words are the whole rubric, and they match the badge tiers below.

Gamify It — The Campus Climb

Every GSU lesson is one badge on the Climber's Passport, earned at four depths: Bronze, Silver, Gold and Platinum.

LESSON 8 BADGE — The Planner · Bronze — The Climb: finished the 45-minute lesson, all five steps. · Silver — The Try: did the homework and explained it to the host. · Gold — The Proof: completed the chapter's Action Report in the workbook with every answer checked against the Answer Key. · Platinum — The Teacher: ran this lesson as host for someone else. The harvest of a teacher is teachers.

Answers for the Host

1. $432
2. $150
3. 30% increase
4. 30%
5. Venue $7,000, catering $8,000, photography $3,000, other $2,000

Keep It Fresh: 1. y = 13 · 2. 180 sq cm

Every answer above comes from the workbook's own Answer Key. The book behind this lesson: 6th Grade Math Workbook: Real-World Problem Solving, Chapter 8 (The Event Planner).

Global Sovereign University: Different by Design. Better by Mission.

The Foundation for Global Instruction · a 501(c)(3) nonprofit · Eugene, Oregon · globalsovereignuniversity.org · FREE TO KEEP · FREE TO SHARE