THE BARATELLI INSTITUTE · **MENTORING AT SCALE**

Money *Smarts.*

Rates, percents, and the math behind every price tag.

Aligns to: ratios, unit rates, and percents (Grade 6 ratios & proportional relationships); comparison shopping, budgeting, and banking basics (personal finance).

Grade 6 · Ages 11–12

1. Unit Rates & the Best Buy
2. Percent of a Number
3. Sales Tax
4. Discounts
5. Discount AND Tax
6. Tip It
7. A Percent-Based Budget
8. Checking Account Register

Project — Plan the Class Party

How to use this packet

These move from unit rates to the percent math behind tax, discounts, and tips, then into a first budget and a checking register. Each percent page opens with a worked example.

1. Unit Rates & the Best Buy	Price per unit; comparison shopping.
2. Percent of a Number	Finding a percent.
3. Sales Tax	Adding tax.
4. Discounts	Percent off.
5. Discount AND Tax	Two-step percent problems.
6. Tip It	Calculating tips.
7. A Percent-Based Budget	Splitting income by percent.
8. Checking Account Register	Tracking a balance.

The project. In the project, students plan a real class party to a $150 budget — pricing items, computing tax, and proving their choices with unit-price math. It pulls the skills together into one real-world task — assign it as a capstone, group work, or homework. **Print in black-and-white, single-sided.** Most worksheets take 15–20 minutes; the answer key with concept notes and differentiation tips is at the back.

LEARN IT FIRST

The ideas behind this packet

Meet Maya. In one Saturday trip she uses every idea in this packet. Read the story once, then the worksheets will make sense — the answers will be things you were *taught*, not things you had to guess.

Maya's Saturday at the mall

Start with the basics: you **earn** money, and then you choose to **spend** it, **save** it, or **give** some away. A **percent** is simply a part out of 100 — and almost every money question is really a percent of something.

Maya has $40. At the grocery she compares two boxes of cereal: 18 oz for $4.50 and 12 oz for $3.36. To choose fairly she finds the **unit price** — price ÷ size — $0.25 an ounce versus $0.28, so the big box wins. A $50 hoodie is **30% off**: the **discount** saves $50 × 0.30 = $15, so she pays $35. At the register the cashier adds **7% sales tax** (about $2.45). At lunch her $20 meal gets an 18% **tip** of $3.60. Maya keeps spending money in a **checking account** (she pays by debit card) and her birthday money in **savings**, where the bank pays her a little extra, called **interest**, just for keeping it there.

KEY TERMS IN THIS STORY

Earn, spend, save, give — the four things you can do with money

Percent — a part out of 100

Unit price — total price ÷ size; the lower one is the better buy

Sales tax — an extra percent added at the register

Discount — a percent taken off the price

Tip — extra pay for service, usually 15–20% of the bill

Checking vs. savings — everyday spending vs. money kept to grow

Interest — extra money the bank pays you to save

LESSON

Comparing prices to find the best buy

Stores sell the same thing in different sizes. To compare fairly, find the price for just one unit.

Unit price

Divide the total price by the size or count; the lower price per unit is the better buy. **Example:** 10 oz for $2.50 → 2.50 ÷ 10 = **$0.25 per oz**.

Bigger isn’t always cheaper

Sometimes the big package costs more per unit, or you don’t need that much. Compare the unit price first, then decide.

Now practice → the Unit Rates & Best Buy worksheet.

Name: _____ Date: _____

1. Unit Rates & the Best Buy

> *Find the price per unit (divide price by size). Then circle the better buy.*

Example — 10 oz for $2.50 = $2.50 ÷ 10 = **$0.25 per oz**.

a) Cereal: 18 oz for $4.50 → _____/oz vs. 12 oz for $3.36 → _____/oz.
Better buy: _____

b) Juice: 64 oz for $3.84 → _____/oz vs. 96 oz for $6.72 → _____/oz.
Better buy: _____

c) Why might someone buy the more expensive-per-unit option anyway?

_____

LESSON

Working with percents

A percent is a part out of 100. Change it to a decimal (move the dot two places left) and multiply.

Percent of a number

Turn the percent into a decimal and multiply. **Example:** 20% of $60 = 0.20 × 60 = **$12**.

Sales tax

An extra percent added at the register: tax = price × rate, and you pay price + tax. **Example:** $40 + 7% tax = $40 + $2.80 = **$42.80**.

Discounts

A percent off: savings = price × rate, sale price = price − savings. **Example:** $50 at 30% off → save $15, pay **$35**. To do both, take the discount first, then add tax.

Tips

Extra pay for good service, usually 15–20% of the bill. **Example:** 18% of $40 = **$7.20**.

Now practice → the Percent of a Number, Sales Tax, Discounts, Discount AND Tax, and Tip worksheets.

Name: _____ Date: _____

2. Percent of a Number

> *A percent means "out of 100." To find a percent of a number, multiply by the decimal.*

Example — 20% of $60 = 0.20 × 60 = **$12**.

a) 20% of $60 = ☐

b) 15% of $80 = ☐

c) 8% of $250 = ☐

Name: _____ Date: _____

3. Sales Tax

> *Sales tax is added to the price. Tax = price × tax rate. Total = price + tax.*

a) A $40 game with 7% tax. Tax = ☐ Total = ☐

b) A $120 jacket with 6.5% tax. Tax = ☐ Total = ☐

Name: _____ Date: _____

4. Discounts

> *A discount is a percent off. Savings = price × discount. Sale price = price − savings.*

a) A $50 hoodie, 30% off. You save ☐ and pay ☐

b) An $80 pair of shoes, 25% off. You save ☐ and pay ☐

Name: _____ Date: _____

5. Discount AND Tax

> *Real life does both: take the discount first, then add tax on the sale price.*

Example — $100, 20% off → $80; then 8% tax → $80 × 1.08 = **$86.40**.

a) A $100 jacket, 20% off, then 8% sales tax. Final price = ☐

b) A $60 backpack, 25% off, then 7% sales tax. Final price = ☐

Name: _____ Date: _____

6. Tip It

> *A tip rewards good service, usually 15–20% of the bill. Tip = bill × rate.*

a) A $40 meal, 18% tip. Tip = ☐ Total = ☐

b) An $85 meal, 20% tip. Tip = ☐ Total = ☐

LESSON

Planning and banking your money

Once you can do the percent math, you can plan your money and keep it safe.

A percent-based budget

Split your money into parts by percent — save some, give some, spend the rest — and the parts add to 100%. **Example:** of $400, save 20% = $80, give 5% = $20.

Checking vs. savings

Checking is for everyday spending (you pay by debit card). **Savings** holds money for later, and the bank pays you **interest**. A register tracks your balance: add deposits, subtract purchases.

Now practice → the Percent-Based Budget and Checking Register worksheets.

Name: _____ Date: _____

7. A Percent-Based Budget

> *Suppose you have $400 to plan with this month — from allowance, gifts, and odd jobs. Split it by percent; the amounts must total $400.*

Category	Percent	Dollar amount
Save	20%	
Give	5%	
Spend	75%	
Total	**100%**	**$400**

Name: _____ Date: _____

8. Checking Account Register

> *A register tracks your money. Add deposits, subtract purchases. Fill in the running balance.*

Description	Deposit (+)	Purchase (−)	Balance
Starting balance	—	—	$300.00
Paycheck	$50.00	—	
Movie + snacks	—	$42.00	
Headphones	—	$76.00	

In one sentence: what is the difference between a **checking** and a **savings** account?

_____

CAPSTONE PROJECT · GRADE 6

Plan the Class Party

Your class has a **$150 budget** for an end-of-year party of 25 students. Your job is to plan it so the total — including 8% sales tax — stays at or under $150.

Step 1 — List what you'll buy

Pick food, drinks, plates/cups, and one fun item. For each, write the unit price, how many you need, and the line total.

Item	Unit price	Quantity	Line total
Subtotal			

Step 2 — Add tax and check the budget

Subtotal = _____ Tax (8%) = _____ **Grand total** = _____

Are you at or under $150? _____ If over, what will you cut or buy in a bigger (cheaper-per-unit) size?

Step 3 — Defend one choice

Pick one item where you chose a bigger size or a different brand to save money. Explain the unit-price math behind your choice.

Teacher’s Answer Key & Concept Notes

1. Unit Rates & the Best Buy — a) $0.25/oz vs $0.28/oz → 18 oz. b) $0.06/oz vs $0.07/oz → 64 oz. c) less spent now, less waste, or fits the need.

Differentiate: Support: divide together on a calculator. Challenge: find the price that makes them tie.

2. Percent of a Number — a) $12 b) $12 c) $20.

Differentiate: Support: find 10% first, then scale. Challenge: find 17.5% of $80.

3. Sales Tax — a) tax $2.80, total $42.80. b) tax $7.80, total $127.80.

Differentiate: Support: move the decimal for 1%, then ×7. Challenge: work backward from a $50 total.

4. Discounts — a) save $15, pay $35. b) save $20, pay $60.

Differentiate: Support: find the savings first. Challenge: what single percent of the price do you pay?

5. Discount AND Tax — a) $86.40. b) $48.15.

Differentiate: Support: do the two steps separately. Challenge: does order (tax first) change the answer? (No.)

6. Tip It — a) tip $7.20, total $47.20. b) tip $17.00, total $102.00.

Differentiate: Support: 10% then half again for 15–20%. Challenge: split the total among 4 people.

7. A Percent-Based Budget — Save $80, Give $20, Spend $300.

Differentiate: Support: 10% of $400 = $40 as an anchor. Challenge: redo with a $520 income.

8. Checking Account Register — Balances: $350, $308, $232. Checking = everyday spending; savings = money set aside to grow.

Differentiate: Support: do one row at a time. Challenge: add a deposit row that returns the balance to $300.

P. Project — Plan the Class Party — Open — total (with tax) ≤ $150; unit-price reasoning shown.

Differentiate: Support: give a sample price list. Challenge: plan for 30 students on the same $150.

Free to copy for classroom use. Standards references are general (Common Core mathematics; national personal-finance education standards / Jump$tart) — verify specific alignment before publishing. Figures are rounded for teaching.