

PERCENT APPLICATIONS

One skill, start to finish: the IEP goal, six probe forms, the graph. Untimed. Fillable PDF.

PERCENT APPLICATIONS Percent Applications: Discount, Tax and Tip -- Goal and Directions

Goal, baseline, directions and benchmarks for one skill. Unlimited score is problems correct out of 10.

Ten real-world percent word problems per form: a discount, a sales tax, or a tip. Every price and percent is chosen so the amount is always exact to the cent -- never a rounding decision.

Sample goal -- invented; edit every bracket to fit the student:
By [annual review date], when given 10 word problems applying a discount, sales tax or tip percent to a price, [Student] will write the correct amount for [8 of 10] problems on [3] consecutive weekly probes, as measured by teacher-scored percent application probes.

BY (DATE) CRITERION (SCORE OUT OF 10, OR PERCENT)

GIVEN (CONDITION: WHAT IS SHOWN, ANY ALLOWED SUPPORT) ON ____ OF ____ CONSECUTIVE PROBES

AS MEASURED BY (THIS PROBE: REAL-WORLD PERCENT APPLICATIONS, FORMS A-F, PAGE 6-11)

STUDENT WILL (THE BEHAVIOR, IN THE WORDS OF THE PROBE)

Baseline: give Forms A, B and C on three days and take the middle score

BASLINE PROBE 1	BASLINE PROBE 2	BASLINE PROBE 3	MEDIAN (THE BASLINE)

Benchmarks toward the goal

BENCHMARK	TARGET DATE	TARGET SCORE	ACTUAL SCORE	MET?

Giving and scoring the probe
☐ Say, "Read each problem, find the percent of the price, then write the amount it asks for in dollars and cents."

My name: _____ Date: _____

Solve. Write the amount in dollars and cents in the box.

SOLVE. WRITE THE AMOUNT IN DOLLARS AND CENTS IN THE BOX.

- Zoe buys a winter jacket that costs 190.00 before tax. The sales tax is 10%. What is the total price with tax?
- Jan buys a video game that costs 200.00 before tax. The sales tax is 20%. What is the total price with tax?
- Ivy's dinner costs 70.00 before tip. Ivy leaves a 10% tip. How much is the tip?
- Leo buys a pair of sneakers that costs 110.00. The store takes 15% off. What is the sale price?
- Leo buys a video game that costs 60.00. The store takes 10% off. What is the sale price?
- Kai buys a poster set that costs 60.00. The store takes 20% off. What is the sale price?
- Mia's lunch costs 30.00 before tip. Mia leaves a 20% tip. How much is the tip?

PERCENT APPLICATIONS Percent Applications: Discount, Tax and Tip -- Data Log and Graph

One row per probe. Three points in a row under the aim line is a decision, not a feeling: change the teaching and write what changed in the notes.

STUDENT CRITERION / AIM GOAL DATE

CORRECT OUT OF 10 -- DRAW THE AIM LINE FROM THE BASELINE TO THE CRITERION FIRST, THEN PLOT EACH WEEK

WEEK	1	2	3	4	5	6	7	8	9	10	11	12

Plot (week)

#	DATE	FORM	CORRECT	ERRORS	MODELS USED ON GRAPH	NOTES (CONDITIONS, WHAT WAS RETEACHED)

PERCENT APPLICATIONS Percent Applications: Discount, Tax and Tip -- Caseload Summary

Every student on this goal, on one grid. Twelve rows, eight probes, one decision column.

TEACHER / CASE MANAGER SKILL (AS THE GOAL WORDS IT) MARKING PERIOD

STUDENT	BASLINE	CRITERION	P1	P2	P3	P4	P5	P6	P7	P8	TREND	DECISION THIS MONTH

How to fill it
☐ One row per student who has a goal on this skill.

What it is for
Grouping: When six students sit on the same goal.

EXAMPLE A Filled-In Data Log (Invented Student)

Marcus is invented. Twelve weekly probes on real-world percent applications, the aim line, the change that three low points forced, and the criterion being met.

The goal, as written for Marcus, seventh grade (invented)
By May 20, when given 10 word problems applying a discount, sales tax or tip percent to a price, Marcus will write the correct amount for 8 of 10 problems on 3 consecutive weekly probes, as measured by teacher-scored percent application probes (forms A-F).

#	DATE	FORM	CORRECT	ERRORS	GRAPHED	NOTES
1	9/9	A	4	6	4	baseline
2	9/9	B	4	6	4	baseline
3	9/10	C	5	5	5	baseline (median of 4, 4, 5 = 4)
4	9/17	D	4	6	4	found the percent of the price correctly on every item but added it on two discount problems instead of subtracting it
5	9/24	E	3	7	3	same pattern
6	10/1	F	4	6	4	3 under aim line: taught a one-line check -- discount makes the price smaller, tax and tip make it bigger -- before writing the final answer!
7	10/8	A	6	4	6	--
8	10/15	B	6	4	6	--
9	10/22	C	7	3	7	errors narrowing to one pattern
10	10/29	D	7	3	7	--
11	11/5	E	8	2	8	criterion met, 1 of 3
12	11/12	F	8	2	8	criterion met, 2 of 3

How to read the log
☐ Baseline was the median of three forms on three days: 4, 4, 5, so 4. Not the average, not the best.
☐ The aim line runs from 4 in week 1 to 8 at the goal date. Probes 4, 5 and 6 (4, 3, 4) sat under it: three in a row, so the teaching changed and the change is written on the row.

PROGRESS MONITORING How This Pack Works

Goal, baseline, weekly probe, graph, decision. Six steps, one skill.

A progress monitoring goal needs a thing to count and a page to count it on. This file is both, for one skill: a goal written in the probe's own words, 6 equivalent forms of the probe that measures it, and a graph scaled to it. Nothing has to be built or found.

- Baseline.** Give Forms A, B and C on three different days. The middle score of the three is the baseline; write it on the goal page.
- Write the goal.** From the six-part frame on the goal page. Start from the sample and change every bracket: the date, the condition, the criterion, the number of probes.
- Probe once a week** with the forms in rotation (A, B, C, D, E, F, A...). Never the same form two weeks running. Every form is ten items, untimed. Score it against the answer key (pages 16-17).
- Log and plot** the score the same day. Draw the aim line first, from the baseline on the left to the criterion at the goal date on the right; then plot each week's dot.
- Decide from the graph.** Three dots in a row under the aim line: change the teaching this week and write the change on the log. Three in a row over it: raise the target.
- Report from the log.** The log gives the progress report its numbers: baseline, the last two scores, and what the errors keep landing on.

The weekly routine, about five minutes
☐ Monday: pull the next form in the rotation (A, B, C, D, E, F, A...).
☐ Any day: give the probe one-to-one, untimed; ten items takes a few minutes.
☐ Same day: score it, log the row, plot the point, look at the last three points.
☐ Friday: if three points sit under the aim line, write the change you are making on the log.

Print and prep
☐ Print one copy per student per week: the student writes on the form and that same sheet is the one you score.
☐ The forms are student sheets with nothing on them but the problems. The answer key and the Correct.../10 box for every form are on pages 16 and 17; score there, then log it.
☐ Keep the goal page and the graph page for each student at the front of the data folder; type into them or write on them.
☐ The caseload page is one grid for every student on

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- 1 **Baseline.** Give Forms A, B and C on three different days. The middle score of the three is the baseline; write it on the goal page.
- 2 **Write the goal** from the six-part frame on the goal page. Start from the sample and change every bracket: the date, the condition, the criterion, the number of probes.
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- ☐ Keep the goal page and the graph page for each student at the front of the data folder; type into them or write on them.
- ☐ The caseload page is one grid for every student on this goal: print it once a month.

What this probe is not

It is not a norm-referenced test and it carries no benchmark score. The sample goal uses invented criteria in brackets; your team sets the real ones from the baseline and the student's IEP. Every form is untimed and ten items long, so a score of 8 means the same thing on every form, and a student is never scored on speed.

Equivalent forms, and why it matters

Every form has ten items drawn the same way, from one shuffle of the same bank, and no item appears on two forms — 60 different items across the six forms. A score on one form means the same as a score on another, so the line on the graph is the student, not the paper. Rotate the forms and the page cannot be memorized.

Percent Applications: Discount, Tax and Tip – Goal and Directions

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Sample goal — invented; edit every bracket to fit the student

By [annual review date], when given 10 word problems applying a discount, sales tax or tip percent to a price, [Student] will write the correct amount for [8 of 10] problems on [3] consecutive weekly probes, as measured by teacher-scored percent application probes.

BY (DATE)

CRITERION (SCORE OUT OF 10, OR PERCENT)

GIVEN (CONDITION: WHAT IS SHOWN, ANY ALLOWED SUPPORT)

ON ____ OF ____ CONSECUTIVE PROBES

STUDENT WILL (THE BEHAVIOR, IN THE WORDS OF THE PROBE)

AS MEASURED BY (THIS PROBE: REAL-WORLD PERCENT APPLICATIONS, FORMS A–F, PAGE 6–11)

Baseline: give Forms A, B and C on three days and take the middle score

BASELINE PROBE 1	BASELINE PROBE 2	BASELINE PROBE 3	MEDIAN (THE BASELINE)

Benchmarks toward the goal

BENCHMARK	TARGET DATE	TARGET SCORE	ACTUAL SCORE	MET?

Giving and scoring the probe

- ☐ Say: "Read each problem, find the percent of the price, then write the amount it asks for in dollars and cents."
- ☐ Rounding rule: round only if an amount is not already exact to the cent. Every price and percent here is chosen so the answer always lands exactly on the cent -- never round.
- ☐ Discount asks for the sale price, tax asks for the total with tax, tip asks for the tip amount alone -- re-read which one the sentence names before you mark an answer wrong.
- ☐ Untimed. Let the student finish all ten.

Scoring rules for this student (accepted answers, reversals, supports allowed)

What the errors say to reteach (carry over from the log)

My name: _____

Date: _____



Solve. Write the amount in dollars and cents in the box.

SOLVE. WRITE THE AMOUNT IN DOLLARS AND CENTS IN THE BOX.

1. Zoe buys a winter jacket that costs 190.00 before tax. The sales tax is 10%. What is the total price with tax?

WORK

2. Jen buys a video game that costs 200.00 before tax. The sales tax is 20%. What is the total price with tax?

WORK

3. Ivy's dinner costs 70.00 before tip. Ivy leaves a 10% tip. How much is the tip?

WORK

4. Leo buys a pair of sneakers that costs 110.00. The store takes 15% off. What is the sale price?

WORK

5. Leo buys a video game that costs 60.00. The store takes 10% off. What is the sale price?

WORK

6. Kai buys a poster set that costs 60.00. The store takes 20% off. What is the sale price?

WORK

7. Mia's lunch costs 30.00 before tip. Mia leaves a 20% tip. How much is the tip?

WORK

8. Leo buys a board game that costs 80.00 before tax. The sales tax is 10%. What is the total price with tax?

WORK

9. Jen buys a pair of headphones that costs 80.00. The store takes 15% off. What is the sale price?

WORK

10. Mia's dinner costs 170.00 before tip. Mia leaves a 15% tip. How much is the tip?

WORK

My name: _____

Date: _____

**Solve. Write the amount in dollars and cents in the box.****SOLVE. WRITE THE AMOUNT IN DOLLARS AND CENTS IN THE BOX.**

1. Max's lunch costs 180.00 before tip. Max leaves a 20% tip. How much is the tip?

WORK

2. Ben buys a bike lock that costs 80.00. The store takes 25% off. What is the sale price?

WORK

3. Ana buys a board game that costs 40.00 before tax. The sales tax is 10%. What is the total price with tax?

WORK

4. Ben buys a pair of sneakers that costs 100.00. The store takes 15% off. What is the sale price?

WORK

5. Sam's dinner costs 190.00 before tip. Sam leaves a 25% tip. How much is the tip?

WORK

6. Leo's take-out order costs 90.00 before tip. Leo leaves a 10% tip. How much is the tip?

WORK

7. Tom buys a board game that costs 80.00. The store takes 10% off. What is the sale price?

WORK

8. Mia buys a bike helmet that costs 90.00 before tax. The sales tax is 15%. What is the total price with tax?

WORK

9. Mia buys a video game that costs 60.00. The store takes 25% off. What is the sale price?

WORK

10. Ivy buys a skateboard that costs 110.00 before tax. The sales tax is 10%. What is the total price with tax?

WORK

Percent Applications: Discount, Tax and Tip – Data Log and Graph

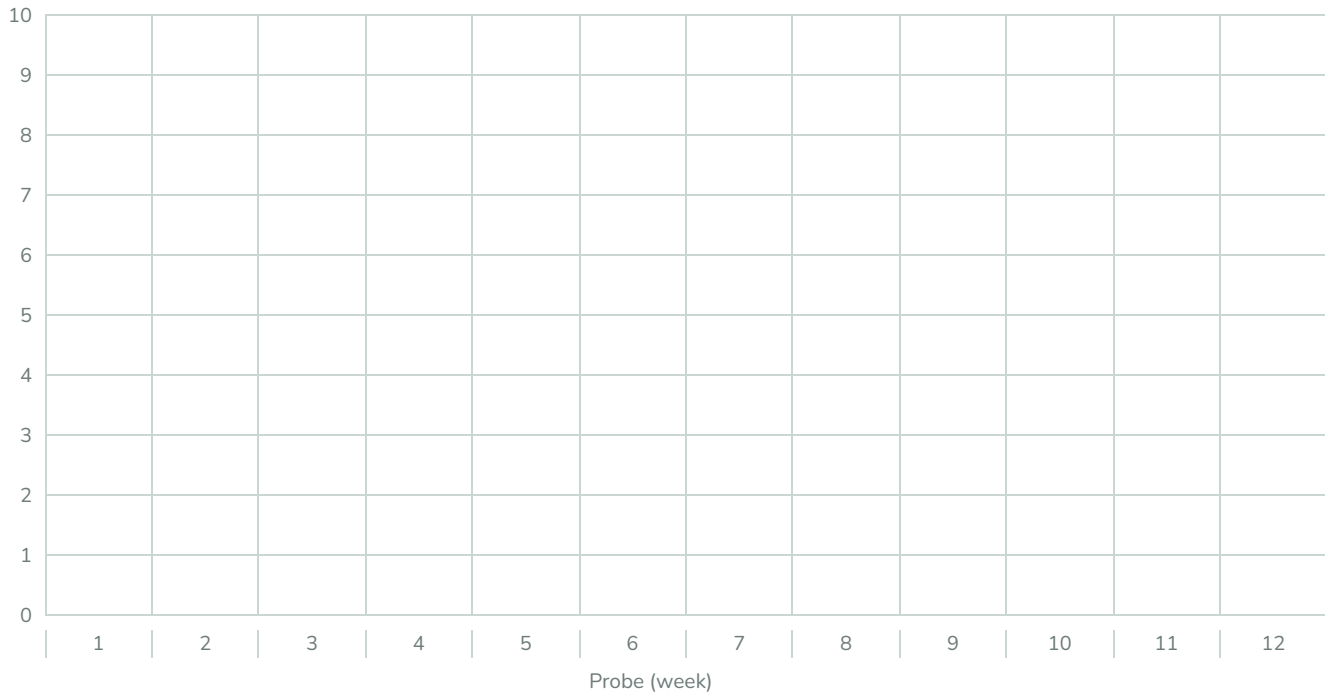
One row per probe. Three points in a row under the aim line is a decision, not a feeling: change the teaching and write what changed in the notes.

STUDENT

CRITERION / AIM

GOAL DATE

CORRECT OUT OF 10 · DRAW THE AIM LINE FROM THE BASELINE TO THE CRITERION FIRST, THEN PLOT EACH WEEK



#	DATE	FORM	CORRECT	ERRORS	SCORE USED ON GRAPH	NOTES (CONDITIONS, WHAT WAS RETEACHED)

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TEACHER / CASE MANAGER

SKILL (AS THE GOAL WORDS IT)

MARKING PERIOD

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How to fill it

- ☐ One row per student who has a goal on this skill. Baseline is the median of the first three probes.
- ☐ One column per weekly probe; write the score out of 10, not a percent, so the rows compare.
- ☐ Trend: up, flat or down over the last four probes. That word, not the last score, is what the decision follows.
- ☐ Decision: keep going, change the teaching, or raise the target. A blank decision on a flat row is the thing this page exists to catch.

What it is for

Grouping. When six students sit on the same goal, the individual graphs answer “how is this child doing” and nothing answers “who needs the same fifteen minutes.” Rows that are flat together are a group; a row that is flat alone is a different question. Take this page to the data meeting instead of ten folders.

EXAMPLE

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8	10/15	B	6	4	6	–
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How to read the log

- ☐ Baseline was the median of three forms on three days: 4, 4, 5, so 4. Not the average, not the best.
- ☐ The aim line runs from 4 in week 1 to 8 at the goal date. Probes 4, 5 and 6 (4, 3, 4) sat under it: three in a row, so the teaching changed and the change is written on the row.
- ☐ The notes name the pattern, not just the count: “found the percent of the price correctly on every item but added it on two discount problems instead of subtracting it” is what sent the teaching somewhere specific, and a score on its own would not have said that.
- ☐ Criterion met on probes 11 and 12; one more consecutive probe at 8 or better and the goal is met.

The progress report sentence this log produces

“On weekly real-world percent applications probes (10 items, untimed), Marcus scored 4 of 10 at baseline in September and 8 of 10 on each of the two most recent probes in November. Progress is sufficient to meet the goal of 8 of 10 on three consecutive probes by May.” Every number in it is on the log above; nothing is from memory.