



PRINTABLES
PREMIUM EDUCATIONAL RESOURCES

One-Step Equations

Scavenger Hunt

Solve & Reveal Loop

Grade 6 | All 4 Operations | 12 Stations

CCSS: 6.EE.B.7 -- Solving Equations of the Form $x + p = q$ and $px = q$

12 Printable Station Cards

Full color, ready to hang, all 4 operations with rational numbers

Self-Checking Loop

Students return to start if all 12 are solved correctly -- instant feedback

Complete Teacher Materials

Answer key, pacing guide, anchor chart, exit ticket, CCSS alignment

Word-Problem Contexts

Every equation is embedded in a real-world scenario for deeper understanding

A Premium Resource by UM Printables



Teacher Overview & Instructions

This resource is a **12-station scavenger hunt** designed for Grade 6 students to practice solving one-step equations covering all four operations: addition, subtraction, multiplication, and division. The activity is fully aligned with **CCSS 6.EE.B.7**, which requires students to solve equations of the form $x + p = q$ and $px = q$ using nonnegative rational numbers. Every equation in this resource is embedded in a real-world word-problem context so students can connect abstract algebraic reasoning to meaningful, concrete situations they might encounter in daily life. This connection between the symbolic equation and the narrative context is essential for building the kind of deep conceptual understanding that transfers to new problem types.

What Makes This Resource Special

Unlike traditional worksheets where students solve problems in isolation, this scavenger hunt transforms equation practice into an engaging, movement-based activity. Research consistently shows that kinesthetic learning opportunities improve retention and engagement, particularly for students who struggle with traditional seat-work formats. The self-checking loop design provides immediate feedback without teacher intervention: if a student solves all 12 equations correctly, they will return to their starting station. If they do not return to their start, they know immediately that at least one answer is incorrect, and they can retrace their steps to find and fix the error. This built-in accountability mechanism means students can work independently or in small groups while the teacher circulates, observes reasoning strategies, and provides targeted support where needed.

Organization of the 12 Stations

The 12 stations are organized into four operation groups, with three stations per group. This deliberate grouping allows teachers to isolate specific operation types for targeted practice or remediation. Stations 1 through 3 focus on addition equations of the form $x + p = q$, where students must subtract to isolate the variable. Stations 4 through 6 address subtraction equations of the form $x - p = q$, requiring students to add to both sides. Stations 7 through 9 cover multiplication equations of the form $px = q$, where division is the inverse operation needed. Finally, Stations 10 through 12 tackle division equations of the form $x / p = q$, which require multiplication as the inverse step. Within each group, the problems progress from simpler decimal values to fraction-based computations, providing a natural scaffold that builds confidence before introducing the added complexity of fraction arithmetic.

Materials Needed

- Printed station cards (pages 7-18), preferably on card stock for durability
- Student recording sheet (pages 19-20), one copy per student
- Pencils and scratch paper for showing work
- Optional: Timer or displayed countdown for pacing
- Optional: Clipboards for students to carry their recording sheets

Before the Activity

CCSS Alignment Chart

All 12 stations in this scavenger hunt are fully aligned with **CCSS.MATH.CONTENT.6.EE.B.7**, which states: "Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q , and x are all nonnegative rational numbers." The table below maps each station to the specific equation form, the values of p and q , the operation type, and the real-world context used.

Stn	Eq. Form	Equation	Operation	p	q	Context
1	$x + p = q$	$x + 3.5 = 8.25$	Addition	3.5	8.25	Baking (flour)
2	$x + p = q$	$x + 1/4 = 5/8$	Addition	1/4	5/8	Cooking (salt)
3	$x + p = q$	$x + 2.75 = 6.5$	Addition	2.75	6.5	Hiking (distance)
4	$x - p = q$	$x - 0.75 = 2.5$	Subtraction	0.75	2.5	Water tank
5	$x - p = q$	$x - 4.2 = 3.8$	Subtraction	4.2	3.8	Competition
6	$x - p = q$	$x - 1/3 = 5/6$	Subtraction	1/3	5/6	Craft ribbon
7	$px = q$	$3x = 18.6$	Multiplication	3	18.6	Shipping boxes
8	$px = q$	$5x = 12.5$	Multiplication	5	12.5	Group gift
9	$px = q$	$4x = 15.2$	Multiplication	4	15.2	Farming
10	$x/p = q$	$x / 4 = 12$	Division	4	12	Classroom supplies
11	$x/p = q$	$x / 5 = 3.6$	Division	5	3.6	Car travel
12	$x/p = q$	$x / 6 = 2.5$	Division	6	2.5	Science fair

Key: Stations 1-3 use the $x + p = q$ form. Stations 4-6 use the $x - p = q$ form (a special case of $x + p = q$ where p is negative). Stations 7-9 use the $px = q$ form. Stations 10-12 use the $x/p = q$ form (equivalent to $px = q$). All p and q values are nonnegative rational numbers.

Station 3

Addition Equation

Read the Problem:

Mia went for a hike. She walked 2.75 miles in the morning before stopping for lunch. By the end of the day, her GPS showed she had hiked a total of 6.5 miles. How many miles did Mia hike after lunch?

Solve the Equation:

$$x + 2.75 = 6.5$$

Solve for x. Show your work on the recording sheet. Then find the station card with your answer displayed at the top.

Hint: Subtract to undo addition

6.2

Station 11

Division Equation

Read the Problem:

A car traveled along a highway for 5 hours at a constant speed. Its average speed was 3.6 miles per hour. What was the total distance the car traveled?

Solve the Equation:

$$x / 5 = 3.6$$

Solve for x. Show your work on the recording sheet. Then find the station card with your answer displayed at the top.

Hint: Multiply to undo division

Student Recording Sheet

One-Step Equations Scavenger Hunt

Name: _____ Date: _____ Starting Station: _____

1	Equation: _____ Show your work:	Answer: _____	Next Station: _____
2	Equation: _____ Show your work:	Answer: _____	Next Station: _____
3	Equation: _____ Show your work:	Answer: _____	Next Station: _____
4	Equation: _____ Show your work:	Answer: _____	Next Station: _____
5	Equation: _____ Show your work:	Answer: _____	Next Station: _____
6	Equation: _____ Show your work:	Answer: _____	Next Station: _____

Student Recording Sheet (continued)

Use this second page if students need additional workspace for showing their solutions. Some students write larger or prefer to show very detailed step-by-step work, and a single page may not provide sufficient room. This continuation page provides extra lines organized by station number so students can easily find their work when reviewing or self-checking.

Station 1: _____

Station 2: _____

Station 3: _____

Station 4: _____

Station 5: _____

Station 6: _____

Station 7: _____

Station 8: _____

Station 9: _____

Station 10: _____

Station 11: _____

Station 12: _____



PRINTABLES
PREMIUM EDUCATIONAL RESOURCES

WHAT'S INCLUDED

One-Step Equations Scavenger Hunt | Grade 6

FULL RESOURCE • 25 PAGES

12 STATION CARDS

4 OPERATIONS

2 RECORDING-SHEET PAGES

STUDENT ACTIVITY

12 station cards organized into 3 addition, 3 subtraction, 3 multiplication, and 3 division stations. Each card includes a one-step equation, a short real-world context, and a hint. Decimal and fraction values appear across the station set.

SELF-CHECKING LOOP

Students solve a station, match their answer to another station's large answer, and move there. The correct route visits every station once and returns to the starting station.

Loop: $1 \rightarrow 5 \rightarrow 9 \rightarrow 2 \rightarrow 7 \rightarrow 11 \rightarrow 3 \rightarrow 8 \rightarrow 12 \rightarrow 4 \rightarrow 6 \rightarrow 10 \rightarrow 1$

STUDENT TOOLS

Two-page recording sheet: space to record the equation, show work, write the answer, and track the next station for all 12 stations, plus a self-check prompt.

Inverse Operations anchor chart: a visual reference for all four operations with examples.

TEACHER SUPPORT

Teacher Overview & Instructions — preparation and implementation guidance.

How the Scavenger Hunt Works — student directions, loop procedure, and teacher tips.

Pacing Guide — 30-minute and 45-minute options with timed phases.

ASSESSMENT & ANSWER KEY

Two-page answer key: solution steps for all 12 station equations plus the next-station/loop verification table.

Exit ticket: 4 independent problems, one for each operation type, with teacher answers included.

CCSS & RESOURCE AT A GLANCE

CCSS Alignment Chart • 6.EE.B.7 maps each station by equation form, values, operation, and context. Stations 1-3 and 7-9 directly use $x + p = q$ and $px = q$; Stations 4-6 and 10-12 provide related subtraction and division practice using inverse operations.

Contexts: baking, cooking, hiking, water tank, competition, craft ribbon, shipping boxes, group gift, farming, classroom supplies, car travel, science fair.

PRINT • PLACE • SOLVE • CHECK

A teacher-and-student printable built around a 12-station one-step-equations loop.