

Math Sub Plans Week, Middle School

Week-long sub plans: five days of print and go work for grades 6 to 8, planned Monday to Friday.

PREVIEW

What is included

- Sub binder: notes, the filled-in week plan, a blank schedule, class list, Monday opener (11 pages)
- Math sets for five days (15 pages)
- Calm puzzles and reset sheets (10 pages)
- Math team tasks (9 pages)
- Math games (10 pages)
- Answer keys (7 pages)

How it works

1. Open the week plan. Every set already has its day and page number.
2. Each day: one math set per period (a lesson with worked examples, practice and a challenge), a calm puzzle, a team task and a game for the last 15 minutes.
3. The sub needs no subject knowledge. Every answer is in the key.
4. Print in color or ink-saver black and white, US Letter or A4.

What this preview shows: the filled-in week plan, the note to the substitute, the Monday opener, and all of Day 1 (the math set, the calm block, the team task and the game), one answer-key page and one ink-saver page. Every product page is watermarked. The full kit has 63 pages.





This Week's Plan

Filled in for you: run the day's set in every period you teach. Keep it as it is, or use the blank schedule on the next page for your own order.

WHEN	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Start of class	Meet Your Sub p. 10 · 15 min, every period	Attendance, voice level	Attendance, voice level	Attendance, voice level	Attendance, voice level
Main work, every period	Math 1 Ratios, Rates and Percent p. 13	Math 2 Integers and Order of Operations p. 21	Math 3 Fractions and Decimals p. 30	Math 4 Area and Perimeter p. 39	Math 5 Data and Graphs p. 48
Early finishers or a loud moment	Word Search and Reset Sheet p. 16	Sudoku and Grounding Sheet p. 24	Secret Codes and Control Sheet p. 33	Maze and Brain Dump p. 42	Word Ladders and Three Good Things p. 51
Block period or extra time	The Number Line-Up p. 18	The Garden Plot Plan p. 26	Design the Dog Park p. 35	Time Capsule Code p. 44	The Calculator Debate p. 53
Last 15 minutes, if earned	Whiteboard Jeopardy p. 19	Paper Password p. 28	Class Feud p. 37	Classroom Millionaire p. 46	Mystery Box p. 55

How to use this plan

- Page numbers point to the first page of each set. Copy one per student.
- The calm block is always allowed: a period that runs short, a loud class, or anyone who finishes early.
- The game is the reward. Skip it on a day the class has not earned it.



Note to the Substitute

Grades 6 to 8 · five days · every set runs from the printout alone

Thank you for covering my classes this week

Everything you need is in this binder. The front pages (important information, weekly schedule, class list) are filled in for this week. After them come the work sets, one per day: **Math 1** is Monday's set, **Math 2** is Tuesday's, and so on to **Math 5** on Friday. Run the day's set in every period you teach that day. Each set is one period (45 to 55 minutes), stands alone, and has its own answer key at the back of the binder, so you never have to make anything up or know the subject. The first page of every set tells you what to say. Every set ends with a challenge, so it stretches to a 90-minute block when you need it.

After the subject sets come the shared blocks, one of each per day. The **calm block** is always allowed: for a period that runs short, a loud class, or anyone who finishes early. The **team task** fills a period on its own. The **game** is the reward slot: fifteen minutes, from the script, when a class has earned it.

Each day has

- One Math set (one period, with a challenge to stretch it)
- A calm and quiet block: a puzzle page and a reset sheet
- A team task for groups of four
- A paper game from the script

If the class is loud

- Set a voice level with a number, 0 to 3, and use it all week (the Day 1 opener explains it).
- Switch to the calm block. Nobody needs to move.
- Every set has a challenge at the end, so fast finishers always have something.
- If a set is not working, stop it and use the calm block or the team task. Every set starts cold.

At the end of each day

Please fill in that day's line on the "How it went" page. It takes two minutes and I read every word.

Did this kit work well for your class? A quick review helps other teachers find it and earns you TpT credits. Thank you!



Meet Your Sub

Day 1 opener, 15 minutes at the start of every period on Monday, before the set. Nothing to prepare.

Opener

Sub script (same routine for every class)

1. **Before first period, fill in the introduction sheet** (next page) once. Keep it honest and short. Students read a sub in ten seconds; give them something real to read.
2. **Introduce yourself** from the sheet: two minutes. Then hold up the "Ask the Sub" list and take three questions from hands. Three, not ten.
3. **Read the class agreement** out loud. Ask the class to add one line of their own and write it on the board for that period. That line is theirs; they will keep it better than yours.
4. **Set the voice level** with a number, 0 to 3 (bottom of the sheet). Say which level the set needs. Use the numbers all week.
5. **Start the set:** "This is today's work. It has a challenge at the end, and the calm block is always allowed when you finish."

If the class is loud

- Skip the questions, keep the agreement and the voice level.
- Start the set sooner. The game at the end of the day is the reward for a level that holds.

If a period has ten minutes left

- Play Two Truths and a Lie (rules on the class page) in groups of six. Each group picks one to share.
- Or hand out the reset sheet from the calm block.

Monday morning checklist (before first period)

- ☐ Read the Important Information page: office number, emergency exits, the nurse.
- ☐ Check the class list for allergies, medical needs and students who leave early.
- ☐ Find today's set on the weekly schedule and count copies for every period.
- ☐ Fill in the About Your Sub sheet and pin it where the class can see it.
- ☐ Write the voice levels 0 to 3 on the board.
- ☐ Put the answer keys somewhere students cannot reach them.



Math Set 1: Ratios, Rates and Percent

Math • Day 1

Read the four worked examples, then try the practice. Show your working in the space next to each problem.

1 Simplify a ratio

18 boys to 12 girls. Divide both by the biggest number that goes into both (6).

$$18:12 = 3:2$$

2 Find a unit rate

240 miles in 4 hours. Divide the first number by the second.

$$240 / 4 = 60 \text{ miles per hour}$$

3 Percent of a number

25% of 80. Turn the percent into a decimal (0.25) and multiply.

$$0.25 \times 80 = 20$$

4 Find the whole from a part

15 is 30% of what number? Divide the part by the decimal.

$$15 / 0.30 = 50$$

Remember

- A **ratio** compares two amounts: 3 : 2 means 3 for every 2.
- A **rate** is a ratio with units, like miles per hour. A **unit rate** has 1 as the second number.
- **Percent** means "out of 100". $35\% = 35/100 = 0.35$.

Quick check: try one of each before the practice

1. Simplify 20 : 35

2. \$7.20 for 8 bottles. Price per bottle?

3. 40% of 65

4. 18 is 60% of what number?



Math Set 1: Practice

Sixteen problems in four blocks. Answers only on the line, working in the space.

Math • Day 1

A. Simplify each ratio

1. 12 : 18

2. 25 : 10

3. 42 : 56

4. 9 : 36

B. Find the unit rate

1. 180 words in 3 minutes

2. \$4.50 for 5 pencils

3. 350 miles on 14 gallons

4. 96 cookies on 8 trays

C. Percent of a number

1. 50% of 64

2. 10% of 250

3. 75% of 40

4. 35% of 200

D. Find the whole

1. 12 is 50% of what number?

2. 9 is 25% of what number?

3. 30 is 20% of what number?

4. 45 is 90% of what number?



Math Set 1: Word Problems and Challenge

Math • Day 1

Six word problems, then two challenges for anyone who finishes early. Write the unit with every answer.

- 1 A recipe uses 2 cups of flour for every 3 cups of oats. You have 9 cups of oats. How much flour do you need?

- 2 A car travels 195 miles in 3 hours. At the same speed, how far does it go in 5 hours?

- 3 A jacket costs \$60. It is 30% off. What is the sale price?

- 4 In a class of 28 students, 7 walk to school. What percent of the class walks?

- 5 A printer prints 45 pages in 90 seconds. How many pages does it print per minute?

- 6 The ratio of dogs to cats at a shelter is 5 : 4. There are 20 dogs. How many cats are there?

Challenge

- 1 A store raises a \$40 price by 25%, then puts the new price on sale for 25% off. What is the final price? (Careful: it is not \$40.)

- 2 Two trains leave the same station. Train A goes 72 miles in 1.5 hours. Train B goes 100 miles in 2 hours. Which is faster, and by how many miles per hour?



Calm Block, Day 1: Word Search

Find all 12 math words. Every direction, including backward. Pencils only, voices at 0.

Calm • Day 1

M	E	D	I	A	N	D	F	V	L	M	M	J	I
U	M	N	D	A	Z	Y	D	R	N	B	B	B	D
Y	N	T	R	B	E	L	B	A	I	R	A	V	H
R	X	W	I	N	T	E	G	E	R	L	C	T	X
A	X	E	Q	U	A	T	I	O	N	S	X	H	Y
T	T	N	E	C	R	E	P	V	H	F	N	E	V
I	M	P	C	U	L	F	J	E	P	O	G	F	U
O	K	B	F	N	B	R	I	L	A	D	I	R	L
W	Y	R	W	H	A	A	P	G	R	Q	F	A	L
E	M	U	L	O	V	C	X	N	G	O	M	S	A
F	J	C	S	B	S	T	I	A	V	I	E	E	M
A	P	T	I	V	A	I	A	X	C	G	R	K	Z
Q	Z	I	Q	X	R	O	F	E	I	A	T	C	T
U	M	J	O	P	Q	N	D	M	Z	C	U	P	X

FRACTION

DECIMAL

INTEGER

PERCENT

EQUATION

VARIABLE

RATIO

ANGLE

VOLUME

MEDIAN

GRAPH

AREA



Reset Sheet

For one person, any time. Nobody reads it but you. Start with the breathing, then the three lines.

Calm • Day 1

Box breathing

Breathe in for four counts, hold for four, out for four, hold for four. Four times.

Three things I can see from my seat

.....

.....

Two sounds in the room right now

.....

.....

One thing I did well today

.....

.....

Right now I feel (circle one)

1 2 3 4 5 6 7 8 9 10

1 = totally calm, 10 = about to burst. Went down by one? That is the skill.



Team Task, Day 1: The Number Line-Up

Groups of four. Voice level 2. No calculators and no pencil math until step 4. One person writes, and no number goes down until all four agree.

Team • Day 1

The challenge

Twelve expressions are lined up below. Your group ranks them by value, from **1 (the greatest)** to **12 (the least)**, using only estimation and number sense: order of operations, fractions, decimals, percents, exponents and negative numbers. Every rank from 1 to 12 is used exactly once. When every group is done, the sub reads out the exact order and you score the difference.

The rule behind the exact order is simple: the expression with the greatest value is 1. Some of these are traps that look big and are small, or look small and are big.

CARD	EXPRESSION	MY RANK	GROUP RANK	EXACT RANK	DIFFERENCE
A	$10 + 10 \times 10$				
B	$48 \div 0.5$				
C	99×0.99				
D	150% of 60				
E	$20 \div \frac{1}{4}$				
F	$\frac{3}{4}$ of 100				
G	$0.07 \times 1,000$				
H	2^6				
I	$(-6) \times (-9)$				
J	$360 \div 8$				
K	$7 \times 7 - 7$				
L	6^2				
Total difference (lower is better)					

The 40 minutes

1. Rank alone, no pencil math. **5 min**
2. Agree on a group rank. **12 min**
3. The sub reads the exact order; score it. **8 min**
4. Work out your three worst misses exactly. **10 min**
5. Defend one choice and debrief. **5 min**

Difference: group rank minus exact rank, drop the minus sign. 10 or less: excellent number sense. 11 to 20: good. 21 to 34: keep practicing.

Group of three or five? Same job; in a group of five, two people share the writing.

Step 4: our three worst misses, worked out exactly

Card =

Card =

Card =

Defend one choice

Which card fooled your group most, and what would you tell another group so they do not fall for it?

.....

.....



Game, Day 1: Whiteboard Jeopardy

Sub script and math questions. 15 minutes at the end of the day, or when the class has earned it.

Game • Day 1

Set up (2 minutes)

1. Draw a 5 by 5 grid on the board (or tape up the board sheet). Write the five category names across the top and the values 100 to 500 down each column.
2. Teams of four to six. Team 1 picks a category and a value.
3. Read the question. The team answers. Right: they win the points and pick again. Wrong: the next team may steal.
4. Cross the square off. Highest total when time is up wins.

Read this out

"This is the reward. If the noise goes above level 2, the square is dead and nobody scores it. Team 1, pick a category and a number."

Keep the score on the board. If a team argues, the script wins and the game moves on.

Ratios

- 100 What is the ratio 6:9 in simplest form?
2:3
- 200 Pens cost \$2 each. How much do 7 pens cost?
\$14
- 300 150 miles in 3 hours is how many miles per hour?
50
- 400 What is 30% of 80?
24
- 500 12 is 40% of what number?
30

Geometry

- 100 A rectangle is 8 cm by 5 cm. What is its area?
40 square cm
- 200 A square has a perimeter of 36 m. How long is a side?
9 m
- 300 Find the area of a triangle, base 10 and height 6.
30 square units
- 400 Two triangle angles are 50 and 60 degrees. The third?
70 degrees
- 500 What is the volume of a box 4 by 3 by 5 inches?
60 cubic inches

Integers

- 100 What is $-7 + 12$?
5
- 200 What is -4 times -6 ?
24
- 300 What is -20 divided by 5?
-4
- 400 What is the absolute value of -15 ?
15
- 500 What is 5 + 3 times $(2 - 6)$?
-7

Data

- 100 What is the mode of 4, 7, 7, 9, 2?
7
- 200 What is the range of 3, 15, 8, 11?
12
- 300 What is the median of 5, 9, 2, 8, 6?
6
- 400 What is the mean of 4, 8, 10, 6?
7
- 500 What is the chance of rolling a 5 on a number cube?
1/6

Fractions

- 100 What is $1/2 + 1/4$?
 $3/4$
- 200 What is $3/4$ as a decimal?
0.75
- 300 What is $2/3$ times 9?
6
- 400 What is $2 \frac{1}{2}$ minus $3/4$?
 $1 \frac{3}{4}$
- 500 What is $3/5$ divided by $1/10$?
6



Game, Day 1: The Board

Tape this to the whiteboard or copy it. Cross squares off as they are played.

Game • Day 1

RATIOS	INTEGERS	FRACTIONS	GEOMETRY	DATA
100	100	100	100	100
200	200	200	200	200
300	300	300	300	300
400	400	400	400	400
500	500	500	500	500

Scores

Team 1

.....

.....

.....

Team 2

.....

.....

.....

Team 3

.....

.....

.....

Team 4

.....

.....

.....

Team 5

.....

.....

.....

Team 6

.....

.....

.....



Teacher copy. Keep these pages out of the student sets.

Quick check: 1. 4 : 7; 2. \$0.90; 3. 26; 4. 30

Simplify each ratio 1. $2 : 3$; 2. $5 : 2$; 3. $3 : 4$

Simplify each ratio 1. 2 : 3; 2. 5 : 2; 3. 3 : 4; 4. 1 : 4

Percent of a number 1. 32; 2. 25; 3. 30; 4. 70

Word problems: 1. 6 cups; 2. 325 miles; 3. \$42; 4. 25%; 5. 30 pages per minute; 6. 16 cats

Challenge: 1. \$37.50 ($40 \times 1.25 = 50$; $50 \times 0.75 = 37.50$); 2. Train B by 2 mph (48 mph vs 50 mph)

Find the unit rate 1. 60 words per minute; 2. \$0.90 per pencil; 3. 25 miles per gallon; 4. 12 cookies per tray

Find the whole 1. 24; 2. 36; 3. 150; 4. 50

M	E	D	I	A	N	D	F	V	L	M	M	J	I
U	M	N	D	A	Z	Y	D	R	N	B	B	B	D
Y	N	T	R	B	E	L	B	A	I	R	A	V	H
R	X	W	I	N	T	E	G	E	R	L	C	T	X
A	X	E	Q	U	A	T	I	O	N	S	X	H	Y
T	T	N	E	C	R	E	P	V	H	F	N	E	V
I	M	P	C	U	L	F	J	E	P	O	G	F	U
O	K	B	F	N	B	R	I	L	A	D	I	R	L
W	Y	R	W	H	A	A	P	G	R	Q	F	A	L
E	M	U	L	O	V	C	X	N	G	O	M	S	A
F	J	C	S	B	S	T	I	A	V	I	E	E	M
A	P	T	I	V	A	I	A	X	C	G	R	K	Z
Q	Z	I	Q	X	R	O	F	E	I	A	C	T	T
U	M	J	O	P	Q	N	D	M	Z	C	U	P	X



Math Set 1: Practice

Sixteen problems in four blocks. Answers only on the line, working in the space.

Math • Day 1

A. Simplify each ratio

1. 12 : 18

2. 25 : 10

3. 42 : 56

4. 9 : 36

B. Find the unit rate

1. 180 words in 3 minutes

2. \$4.50 for 5 pencils

3. 350 miles on 14 gallons

4. 96 cookies on 8 trays

C. Percent of a number

1. 50% of 64

2. 10% of 250

3. 75% of 40

4. 35% of 200

D. Find the whole

1. 12 is 50% of what number?

2. 9 is 25% of what number?

3. 30 is 20% of what number?

4. 45 is 90% of what number?

In the full kit

Five days, planned and ready to print.

63 pages in color and ink-saver
B&W, US Letter and A4

5 days, each with its own sets, calm
puzzle, team task and game

15 pages of math sets with worked
examples

7 answer-key pages, every answer
checked

Thank you! If this works for your class, a quick review helps other teachers find it, and earns you TpT credits.

