

Fluency Activities

Grade 6

Sixth Grade Fluency Activities

Math fluency activities in Imagine+ Math help students develop accuracy, efficiency, and flexibility in mathematical thinking. They provide structured practice to strengthen number sense, reinforce foundational skills, and build automaticity with key math concepts. Fluency activities increase student confidence by engaging them in problem-solving, developing a deeper understanding of mathematical relationships, and preparing them for more complex tasks.

Some activities require materials found in your classroom.

Contents		
Activity 1	Integer Walk-Off	3
	Integer Cards (from -10 to +10, no zero)	4
Activity 2	Ratio Match-Up	6
	Ratio Cards (e.g., 2:3, 4:6, 1:4, 2:8)	7
Activity 3	Equation Mystery Match	9
	Equation/Solution Cards	10
Activity 4	Surface Area Wrap Challenge	11
Activity 5	Money Moves – A Real-Life Choices Game	12
	Money Moves: Career and Scenario Cards	13



Activity 1

Integer Walk-Off

Topic/Concept

Solving Integer Problems

Objective

Students will solve integer problems by modeling movement on a number line and justifying their reasoning.

Materials

- Painter's tape number line on the floor (from -10 to $+10$)
- Set of integer cards (from -10 to $+10$, no zero)

Steps

1. Two students draw an integer card each (one positive, one negative).
2. They "walk" to their number on the taped number line.
3. Teacher gives an operation (e.g., "add your numbers," "take three steps back," or "who is farther from zero?").
4. Students solve the problem physically by moving or comparing their positions. Class confirms.
5. Rotate with new pairs and operations.

Resource List

- Set of integer cards (from -10 to $+10$, no zero)

Integer Cards (from -10 to +10, no zero)

Page 1 of 2

+1

+2

+3

+4

+5

+6

+7

+8

+9

+10

Integer Cards (from -10 to +10, no zero)

Page 2 of 2

-1

-2

-3

-4

-5

-6

-7

-8

-9

-10

Activity 2

Ratio Match-Up

Topic/Concept

Representing Ratios

Objective

Students will represent a set of equivalent ratios in a table and explain the pattern of change.

Materials

- Ratio cards (e.g., 2:3, 4:6, 1:4, 2:8)
- Table templates for recording equivalent ratios (or T-charts on scratch paper)

Steps

1. Students receive ratio cards.
2. They find classmates with equivalent ratios to form a group.
3. Each group creates a ratio table to show how their ratios connect.
4. Share as a class how the tables demonstrate proportional reasoning.
5. **Extend:** Have students create a graph of one of their ratio tables to identify the straight-line relationship.

Resource List

- Ratio cards (e.g., 2:3, 4:6, 1:4, 2:8)

Ratio Cards

Page 1 of 2

2:3

4:6

8:12

1:4

2:8

3:12

3:5

6:10

9:15

4:7

8:14

12:21

5:2

10:4

15:6

Ratio Cards

Page 2 of 2

7:3

14:6

21:9

2:9

4:18

6:27

5:6

10:12

15:18

3:8

6:16

9:24

11:2

22:4

33:6

Activity 3

Equation Mystery Match

Topic/Concept

Solving One- and Two-Step Equations

Objective

Students will solve one-step and two-step equations and match each equation to its solution.

Materials

- Envelopes with pairs of cards (one with an equation, one with its solution)
- Optional: Balance scale or algebra tiles

Steps

1. Each student or pair receives an envelope.
 - each envelope has four equations (and four solutions)
2. They solve each equation and find the matching solution card.
3. Once matched, they check with a balance scale model or tiles.
4. Trade envelopes with another group and repeat.

Resource List

- Equation/Solution matching cards (20 equations/solutions)

Answer Key:

$$x + 7 = 19 \quad x = 12$$

$$x - 15 = -3 \quad x = 12$$

$$3x = 27 \quad x = 9$$

$$\frac{x}{6} = -4 \quad x = -24$$

$$2x + 5 = 21 \quad x = 8$$

$$4x - 9 = 19 \quad x = 7$$

$$5x + 3 = 28 \quad x = 5$$

$$7x - 14 = 0 \quad x = 2$$

$$\frac{x}{4} + 6 = 10 \quad x = 16$$

$$9 - x = 2 \quad x = 7$$

$$x + 3.5 = 10 \quad x = 6.5$$

$$0.5x = 6 \quad x = 12$$

$$3x + 4 = -11 \quad x = -5$$

$$-2x + 1 = 9 \quad x = -4$$

$$\frac{x}{3} - 2 = 5 \quad x = 21$$

$$x - \frac{3}{4} = \frac{5}{4} \quad x = 2$$

$$\frac{2}{3}x = 10 \quad x = 15$$

$$6x + 12 = 48 \quad x = 6$$

$$2(x - 3) = 14 \quad x = 10$$

$$x + x + 5 = 23 \quad x = 9$$

Equation/Solution Cards

$x + 7 = 19$	$x = 12$	$x + 3.5 = 10$	$x = 6.5$
$x - 15 = -3$	$x = 12$	$0.5x = 6$	$x = 12$
$3x = 27$	$x = 9$	$3x + 4 = -11$	$x = -5$
$\frac{x}{6} = -4$	$x = -24$	$-2x + 1 = 9$	$x = -4$
$2x + 5 = 21$	$x = 8$	$\frac{x}{3} - 2 = 5$	$x = 21$
$4x - 9 = 19$	$x = 7$	$x - \frac{3}{4} = \frac{5}{4}$	$x = 2$
$5x + 3 = 28$	$x = 5$	$\frac{2}{3}x = 10$	$x = 15$
$7x - 14 = 0$	$x = 2$	$6x + 12 = 48$	$x = 6$
$\frac{x}{4} + 6 = 10$	$x = 16$	$2(x - 3) = 14$	$x = 10$
$9 - x = 2$	$x = 7$	$x + x + 5 = 23$	$x = 9$



Activity 4

Surface Area Wrap Challenge

Topic/Concept

Finding Surface Area

Objective

Students will calculate the surface area of a rectangular prism by measuring dimensions and adding the areas of all faces.

Materials

- Small boxes (tissue boxes, food cartons, cube manipulatives)
- Scrap paper or wrapping paper
- Scissors, tape
- Rulers

Steps

1. Students work in pairs to “wrap” their assigned box with paper.
2. Before cutting, they must calculate the exact surface area and cut the paper accordingly.
3. After wrapping, they check if their prediction was accurate.
4. Share strategies for how they calculated the total area.

Resource List

no additional resources needed

Activity 5

Money Moves – A Real-Life Choices Game

Topic/Concept

Applying Financial Decisions

Objective

Students will model realistic financial decisions by recording transactions and explaining the impact on their balance.

Materials

- “Career cards” with sample annual salaries (e.g., teacher, chef, engineer)
- “Scenario cards” (examples: “You want to buy a \$50 video game. Do you use debit or credit?” / “Your check register shows \$75. You deposit \$40. What’s your new balance?”)
- Fake check registers (templates printed for students)
- Scratch paper to record credit decisions

Steps

1. Divide students into small groups. Each group receives a Career card with an annual salary and a blank check register.
2. Groups draw Scenario cards one at a time. They must record transactions, choose between debit/credit, or make decisions about saving, borrowing, or paying for college.
3. If a group chooses “credit,” they must pay an additional “interest” fee on their next turn.
4. After several rounds, groups compare balances and decisions, discussing which choices were financially smart and why.

Simple game rules to print on the board:

- Start balance: \$0.00
- When you choose “credit,” write the purchase like normal.
 - On your next turn, you must also subtract an interest fee = 10% of that credit purchase (round to the nearest cent).

Resource List

- Set of six Career and Scenario cards (enough for six groups)

Money Moves: Career and Scenario Cards

Page 1 of 6

CAREER CARD

Career: **Veterinary Assistant**

Annual Salary: **\$36,000**

Monthly Pay (deposit on Payday): **\$3,000.00**

★ **PAYDAY!** ★

Deposit **\$3,000.00**.

GROCERIES

Pay **\$86.45** (debit).

PHONE SCREEN CRACKED

Repair costs: **\$59.99**.

Choose **debit** or **credit**.
(If credit, pay 10% interest next turn.)

WEEKEND JOB

Deposit **\$45.00**.

BUS PASS

Pay **\$28.50** (debit).

ONLINE SUBSCRIPTION RENEWED

Pay **\$12.99** (debit).

YOU WANT NEW HEADPHONES

Cost: **\$34.75**.

Choose **debit** or **credit**.
(If credit, pay 10% interest next turn.)

UNEXPECTED FEE

Pay a **\$10.00** service fee (debit).

GIFT MONEY FROM A RELATIVE

Deposit **\$25.00**.



Money Moves: Career and Scenario Cards

Page 2 of 6

CAREER CARD

Career: **Auto Technician**

Annual Salary: **\$42,000**

Monthly Pay (deposit on Payday): **\$3,500.00**

★ **PAYDAY!** ★

Deposit **\$3,500.00**.

RENT CONTRIBUTION

Pay **\$650.00** (debit).

CLASS TRIP PAYMENT

Cost: **\$48.00**.

Choose **debit** or **credit**.
(If credit, pay 10% interest next turn.)

GROCERIES

Pay **\$95.20** (debit).

FOUND \$5 BILL

Deposit **\$5.00**.

STREAMING SERVICE

Pay **\$14.99** (debit).

NEW BASKETBALL SHOES

Cost: **\$89.95**.

Choose **debit** or **credit**.
(If credit, pay 10% interest next turn.)

REFUND

You return an item and get
\$18.40 back (deposit).

UTILITY BILL

Pay **\$73.60** (debit).



Money Moves: Career and Scenario Cards

Page 3 of 6

CAREER CARD Career: Chef Annual Salary: \$48,000 Monthly Pay (deposit on Payday): \$4,000.00	★ PAYDAY! ★ Deposit \$4,000.00.
GROCERIES Pay \$112.35 (debit).	VIDEO GAME YOU WANT Cost: \$50.00. Choose debit or credit. (If credit, pay 10% interest next turn.)
SAVINGS CHALLENGE Deposit \$25.00 into savings (withdraw from checking).	RESTAURANT TREAT Pay \$18.75 (debit).
CAR WASH FUNDRAISER Donate \$10.00 (debit).	NEW JACKET Cost: \$42.60. Choose debit or credit. (If credit, pay 10% interest next turn.)
COUPON SAVINGS Deposit \$8.00 (rebate).	INTERNET BILL Pay \$55.90 (debit).



Money Moves: Career and Scenario Cards

Page 4 of 6

CAREER CARD Career: Teacher Annual Salary: \$54,000 Monthly Pay (deposit on Payday): \$4,500.00	★ PAYDAY! ★ Deposit \$4,500.00.
CLASSROOM SUPPLIES Pay \$27.48 (debit).	YOU NEED A NEW TABLET CHARGER Cost: \$19.95. Choose debit or credit. (If credit, pay 10% interest next turn.)
RENT/MORTGAGE Pay \$900.00 (debit).	GROCERIES Pay \$103.66 (debit).
SOLD OLD BOOKS Deposit \$12.50.	MOVIE NIGHT Cost: \$16.00. Choose debit or credit. (If credit, pay 10% interest next turn.)
WATER BILL Pay \$41.25 (debit).	BIRTHDAY CARD CASH Deposit \$20.00.



Money Moves: Career and Scenario Cards

Page 5 of 6

CAREER CARD Career: Civil Engineer Annual Salary: \$72,000 Monthly Pay (deposit on Payday): \$6,000.00	★ PAYDAY! ★ Deposit \$6,000.00.
RENT/MORTGAGE Pay \$1,200.00 (debit).	NEW SNEAKERS Cost: \$64.80. Choose debit or credit. (If credit, pay 10% interest next turn.)
GROCERIES Pay \$128.40 (debit).	SAVINGS GOAL Transfer \$150.00 to savings (withdraw from checking).
GAS/TRANSPORTATION Pay \$45.30 (debit).	CONCERT TICKET Cost: \$75.00. Choose debit or credit. (If credit, pay 10% interest next turn.)
FRIEND PAYS YOU BACK Deposit \$22.15.	ELECTRIC BILL Pay \$96.55 (debit).



Money Moves: Career and Scenario Cards

Page 6 of 6

CAREER CARD Career: Nurse Annual Salary: \$60,000 Monthly Pay (deposit on Payday): \$5,000.00	★ PAYDAY! ★ Deposit \$5,000.00.
GROCERIES Pay \$117.89 (debit).	EMERGENCY DENTAL VISIT Cost: \$35.00. Choose debit or credit. (If credit, pay 10% interest next turn.)
RENT/MORTGAGE Pay \$1,050.00 (debit).	PHONE BILL Pay \$62.35 (debit).
SIDE GIG Deposit \$30.00.	NEW BACKPACK Cost: \$39.95. Choose debit or credit. (If credit, pay 10% interest next turn.)
BANK FEE Pay \$8.00 (debit).	REFUND Deposit \$14.25 (returned item).



