

Notes for teachers:

- The questions in this interleave unit can be solved fairly quickly so push for strong definitions of quadrilaterals (complete sentences) and push cross simplifying whenever possible during fraction multiplication.
- If your students need more practice with classifying triangles and quadrilaterals, have them try these IXL Skills:
 - [6EE2 - Classify triangles](#)
 - [7Z5 - Classify quadrilaterals I](#)
- The Curveball questions in this interleave unit remediate probability questions and integer addition and subtraction.



No calculators

**7th Grade
Math Review
Unit 2**

Name: _____

Unit Topics:

1. Integer addition and subtraction word problems
2. Absolute value
3. Fraction multiplication and division
4. Classifying triangles and quadrilaterals

Notes:

Round 1

1. Which situations can be represented by the expression $-3 + 3$?
Select all that apply.

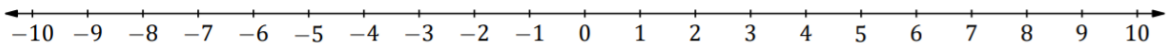
- (A) Nancy owes \$3 on an account and then withdraws another \$3.
- (B) Jason pays \$3 on the \$3 he owes in fines.
- (C) There is a change in temperature from -3°F to 0°F .
- (D) A toy car travels at a rate of 3 meters per minute for 3 minutes.
- (E) Teri's score in a word game is 0 after scoring 3 points.

2. Absolute value is the distance of a number from zero on the number line.
The notation for absolute value is below:

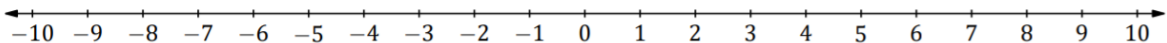
- Ex. $|6|$ indicates "the absolute value of 6"

Find the following absolute values. Prove your answer on the number line.

a. $|-4| =$



b. $|9| =$



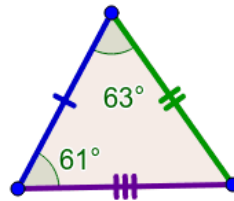
3. Find the product. Simplify all answers. Cross simplify when possible!

$$\frac{3}{4} \times \frac{4}{5} =$$

$$\frac{2}{9} \times \frac{3}{10} =$$

4. Use the word bank of vocabulary below to classify the triangle in **two** ways.

Angle classification			Side length classification		
Acute	Obtuse	Right	Equilateral	Isosceles	Scalene



Round 1: Second At Bat

5. What is the value of $|3|$ and $|-3|$? Explain why they have the same value. Draw a number line to prove your point.

6. Peter made a transaction today at his bank. What would the sum $-47.27 + 598 = \$550.73$ mean in terms of Peter's bank account?

(A) He deposited \$47.27 and withdrew \$598, decreasing his balance by \$550.73.

(B) He deposited \$47.27 and withdrew \$598, increasing his balance by \$550.73.

(C) He withdrew \$47.27 and deposited \$598, decreasing his balance by \$550.73.

(D) He withdrew \$47.27 and deposited \$598, increasing his balance by \$550.73.

7. Find the product. Simplify all answers. Cross simplify when possible!

$$\frac{3}{4} \times \frac{2}{3} =$$

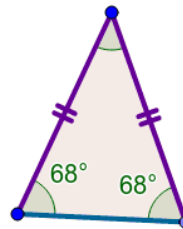
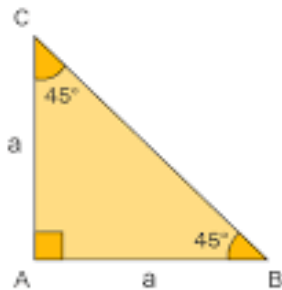
$$\frac{4}{7} \times \frac{1}{2} =$$

$$\frac{6}{7} \times \frac{1}{3} =$$

$$\frac{8}{11} \times \frac{1}{2} =$$

8. Use the word bank of vocabulary below to classify the triangles in **two** ways.

Angle classification			Side length classification		
Acute	Obtuse	Right	Equilateral	Isosceles	Scalene



Round 1: CURVEBALL!

9. Based on a weather report, the probability that it will rain tomorrow is 0.13. Which word describes the likelihood that it will rain tomorrow?
- (A) certain
 - (B) impossible
 - (C) likely
 - (D) unlikely

Round 2

1. At 7.00am, the temperature was -6°F . The temperature was 8°F higher at noon.

a. Which of the following expressions can be used to calculate the temperature at noon?

(A) $-6 + 8$

(B) $-6 - 8$

(C) $8 + 6$

(D) $8 - (-6)$

b. What was the temperature at noon?

2. Find the product or quotient.

$$\frac{4}{7} \times \frac{5}{12} =$$

$$\frac{3}{8} \div \frac{4}{5} =$$

3. Evaluate.

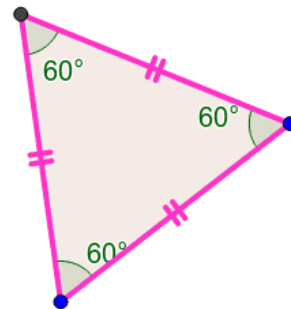
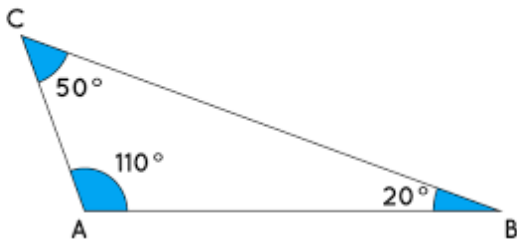
a. $|-8| =$

b. $|-1.5| =$

c. $|2\frac{1}{2}| =$

4. Use the word bank of vocabulary below to classify each triangle in **two ways.**

Acute	Equilateral	Right	Isosceles	Obtuse	Scalene
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Round 2: Second At Bat

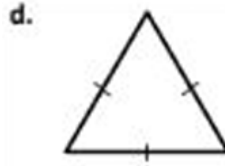
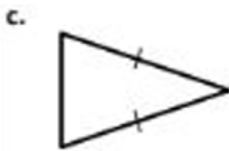
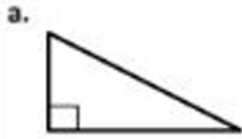
5. A deep-sea exploring ship is pulling up a diver. The diver is 210 feet below sea level. The ship just pulled him up 57 feet. What is the diver's altitude now?

6. Find the product or quotient.

$$\frac{2}{3} \div \frac{4}{5} =$$

$$\frac{10}{11} \times \frac{2}{5} =$$

7. Classify each triangle by its side lengths and angle measurements.



8. Evaluate.

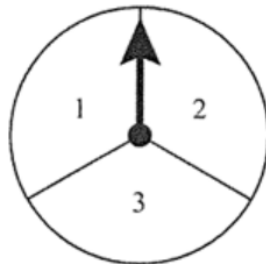
a. $|-8.8| =$

b. $|109| =$

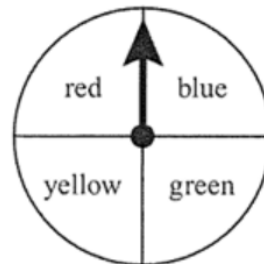
c. $\left|9\frac{1}{6}\right| =$

Round 2: CURVEBALL!

9. Haley has one spinner that is divided into three congruent sections and one spinner that is divided into four congruent sections, as shown below.



Spinner L



Spinner M

Haley will spin the arrow on each spinner one time. All the possible combinations that can occur are shown in the list below.

1, red	2, red	3, red
1, blue	2, blue	3, blue
1, green	2, green	3, green
1, yellow	2, yellow	3, yellow

What is the probability that the arrow on Spinner L will stop on a section with an odd number and the arrow on Spinner M will stop on the red section?

- (A) $\frac{1}{6}$ (B) $\frac{1}{5}$ (C) $\frac{11}{12}$ (D) $\frac{3}{4}$

Round 3

1. Simplify the following expressions using what you know about absolute value.

a. $|-8| + |-7| =$

b. $|10| + |-9| =$

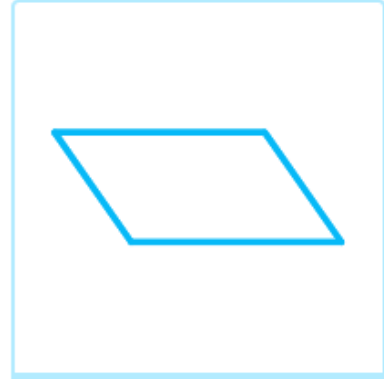
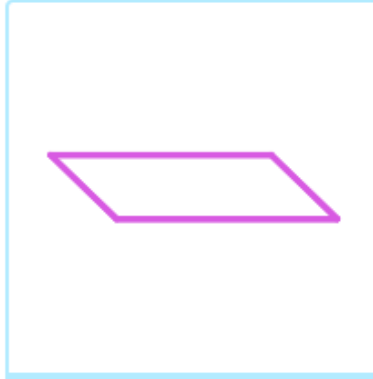
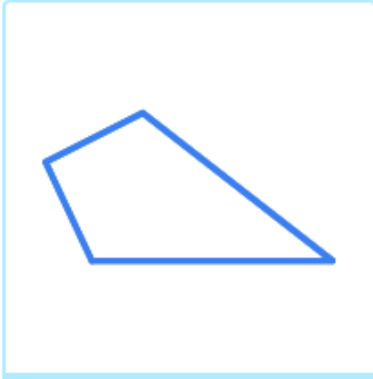
c. $|-9| - |9| =$

d. $|-7| + |-7| =$

e. $|-8| - |-8| =$

2. In ten minutes Kyla walked two-thirds of a mile. Nelvin walked five-sixths as far as Janet in ten minutes. What fraction of a mile did Nelvin walk in ten minutes?

3. Select all the parallelograms:



What is a parallelogram?

4. The temperature at midnight was 2°F . At sunrise the temperature was 5°F lower.

What was the temperature at sunrise?

- (A) -7°F
- (B) -3°F
- (C) 3°F
- (D) 7°F

Round 3: Second At Bat

5. What is the value of the expression below?

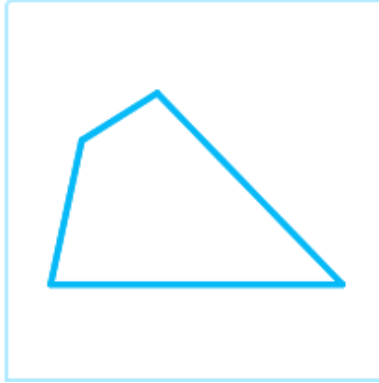
$$|4| + |-9|$$

- (A) -13
(B) -5
(C) 5
(D) 13

6. Miranda had $\frac{1}{4}$ of a piece of chocolate leftover. She wanted to share it with 3 people. How much of the chocolate does each person get if they get the same amount of chocolate?

- (A) $\frac{3}{4}$
(B) 12
(C) $1\frac{1}{3}$
(D) $\frac{1}{12}$

7. Select all the trapezoids:



What is a trapezoid?

8. While watching a football game, Lin decided to list yardage gained as positive integers and yardage lost as negative integers. After three plays, Lin recorded 14, -7 and 9. Did the ball move forward or backward from where it was at the first play?

No calculators

**7th Grade
Math Review
Unit 2**

Round 3: CURVEBALL!

9. What value of n makes the equation below true?

$$28 + n = 0$$

Round 4

1. The average surface temperature on Jupiter is -162°F . The average surface temperature on Saturn is 46°F less than on Jupiter. What is the average surface temperature on Saturn?

- (A) -166°F
- (B) -126°F
- (C) -208°F
- (D) -218°F

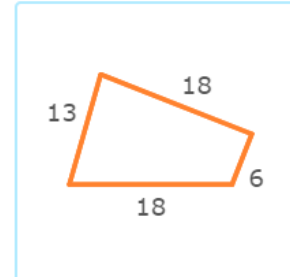
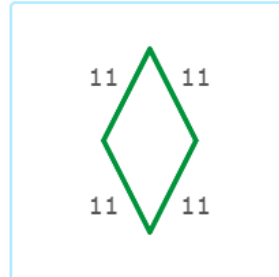
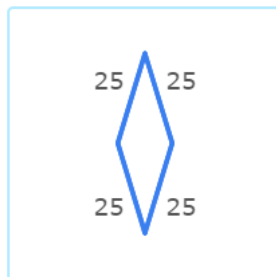
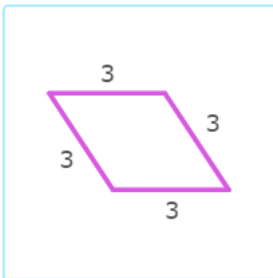
2. What is the value of the expression below?

$$|7| + |-3|$$

- (A) -10
- (B) -4
- (C) 4
- (D) 10

3. Leilani and Alora got paid for a mural they made. Paint had cost them $\frac{1}{5}$ of their pay. Half of their paint was blue paint. What fraction of their pay had Leilani and Alora spent on blue paint?

4. Which of the following is **not** a rhombus:



What is a rhombus?

Round 4: Second At Bat

5. What is the value of the expression below?

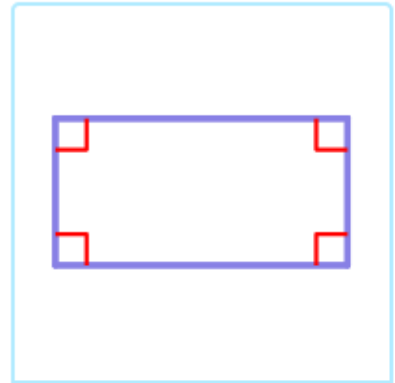
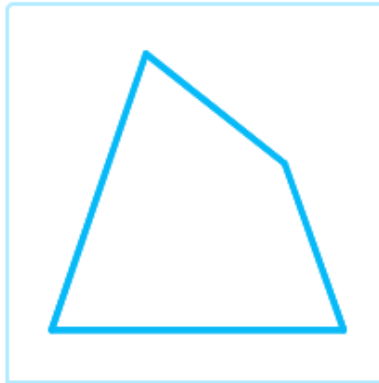
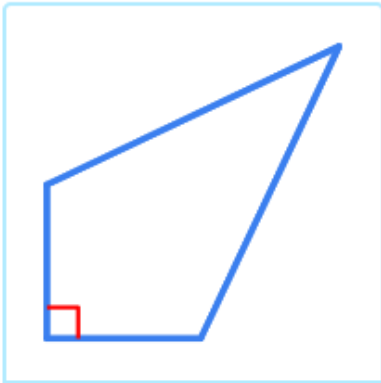
$$|-16| - |8|$$

- (A) -24
- (B) -8
- (C) 8
- (D) 24

6. Josie's checking account balance is -\$671. She pays the bank \$250. What is her balance now?

7. Fred's bird feeder holds $\frac{3}{5}$ of a cup of birdseed. Fred is filling the bird feeder with a scoop that holds $\frac{3}{10}$ of a cup. How many scoops of birdseed will Fred put into the feeder?

8. Which of the following quadrilaterals *can* be classified as a parallelogram?

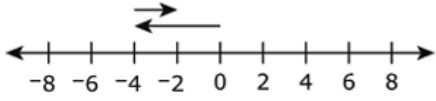
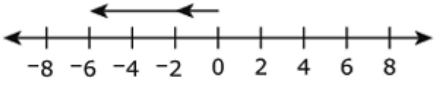


Explain why.

Round 4: CURVEBALL!

9. For each expression in the table, select which number line model, if any, can be used to represent the expression.

Select the appropriate cells in the table.

Expression			Neither number line model can be used to represent the expression.
$-2 + 4$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$-2 - 4$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$-2 - (-4)$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$-4 + 2$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$-4 - (-2)$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>