Name_____ Date_____ Period_____

LESSON 6-2 · SESSION 2 · PRACTICE · FORM A

Dividing with Mixed Numbers

Learning target – I can divide mixed numbers by writing them as improper fractions first. · 6.NS.A.1

REMEMBER

- Write each mixed number as an **improper fraction**: 2 3/4 = (2 × 4 + 3)/4 = 11/4.
- Then **multiply by the reciprocal** of the divisor.
- Simplify. Write an improper answer as a **mixed number**.

WORKED EXAMPLE

A ribbon is 6 3/4 meters long. Each bow uses 2 1/4 meters. How many bows can be made?

Step 1 Convert: 6 3/4 = 27/4 and 2 1/4 = 9/4.

Step 2 Multiply by the reciprocal: 27/4 × 4/9 = 108/36.

Step 3 Simplify: 108/36 = 3. Check: 3 × 2 1/4 = 6 3/4.

Answer **3 bows**

WORDS **mixed number** *(número mixto)* · **improper fraction** *(fracción impropia)* · **simplify** *(simplificar)*

PRACTICE

show your work · label units

1. Divide. Write each quotient in simplest form.

a. 5 1/2 ÷ 1 1/4 = _____ **b.** 3 3/8 ÷ 3/4 = _____ **c.** 4 1/2 ÷ 1 1/2 = _____

d. 2 1/2 ÷ 1/3 = _____ **e.** 1 3/4 ÷ 3 1/2 = _____ **f.** 2 2/3 ÷ 4 = _____

2. **Garden Box.** A builder has a 4 1/2-foot board and 7 1/2 pounds of soil.

a. He cuts the board into 3/4-foot pieces. How many pieces? _____ pieces

b. Each bag holds 2 1/2 pounds of soil. How many bags can he fill? _____ bags

Show your work.

3. **Paint Coats.** A painter has 3 3/4 liters of paint. Each coat uses 1 1/4 liters. How many coats can she paint?

Hint *3 3/4 = 15/4 and 1 1/4 = 5/4.*

Show your work.

Answer_____ coats

4. **Yarn Scarves.** Bea has 11 1/4 yards of yarn. Each scarf needs 2 1/4 yards. How many scarves can she knit?

Hint *Write both as fourths first.*

Show your work.

Answer_____ scarves

5. Sugar Scoops. A jar holds 4 1/2 cups of sugar. Tomás says it fills 2 1/4 half-cup scoops. Justify or correct him.

Hint *More scoops or fewer scoops than cups?*

Show your work.

Answer_____ scoops

6. Door Trim. A shop has 16 1/2 ft of trim. A door uses 4 1/2 ft. The rest is cut into 1 1/2-ft pieces.

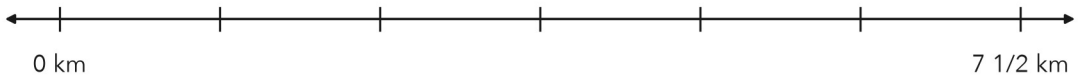
Hint *Subtract first, then divide by 3/2.*

a. How much trim is left? _____ ft

b. How many pieces? _____ pieces

Show your work.

7. Trail Markers. A trail is 7 1/2 km long. Markers are placed every 1 1/4 km, starting at the 1 1/4 km point. Ticks are every 1 1/4 km.



a. How many 1 1/4-km spacings fit along the trail? _____ spacings

b. How many markers are placed, counting the one at the end? _____ markers

c. Why are the two counts the same? _____

8. Punch Pitchers. A jug holds 9 1/3 cups of punch. Each pitcher holds 2 1/3 cups. How many pitchers can be filled? Check by multiplying.

Hint *Check: 4 × 2 1/3 should equal 9 1/3.*

Show your work.

Answer_____ pitchers

FIND THE ERROR

explain the mistake, then fix it

9. Omar's Work. Omar solved 4 1/4 ÷ 1/2. He changed 4 1/4 into 5/4, then wrote 5/4 × 2/1. Explain his mistake. Then find the correct quotient.

TEST PRACTICE

choose the best answer

10. Written as an improper fraction, 2 3/4 is –

A 11/4 **B** 6/4 **C** 9/4 **D** 23/4

11. Before you divide mixed numbers, you must –

A flip both **B** make improper fractions

C divide wholes only **D** add the wholes

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

3 F	5 L	7 X	12 P	9 I	11 Z	4 D	2 1/4 Q	6 E	8 P

#3	#4	#5	#6a	#6b	#7a	#8

CHECK YOURSELF	☐ I can do this on my own	☐ I need a little help	☐ I have a question about #___