Mathematics Grade 6 20th January 2021

Problem Solving / APPLICATION

Section A. Write the numbers and decimals for these word numbers.

EXAMPLE: **four and twenty-three thousandths** 4.023
three and two tenths 3.2

★ Six and seven tenths _____

★ Nineteen and forty-seven hundredth _____

★ Two hundred thirty-eight thousandths _____

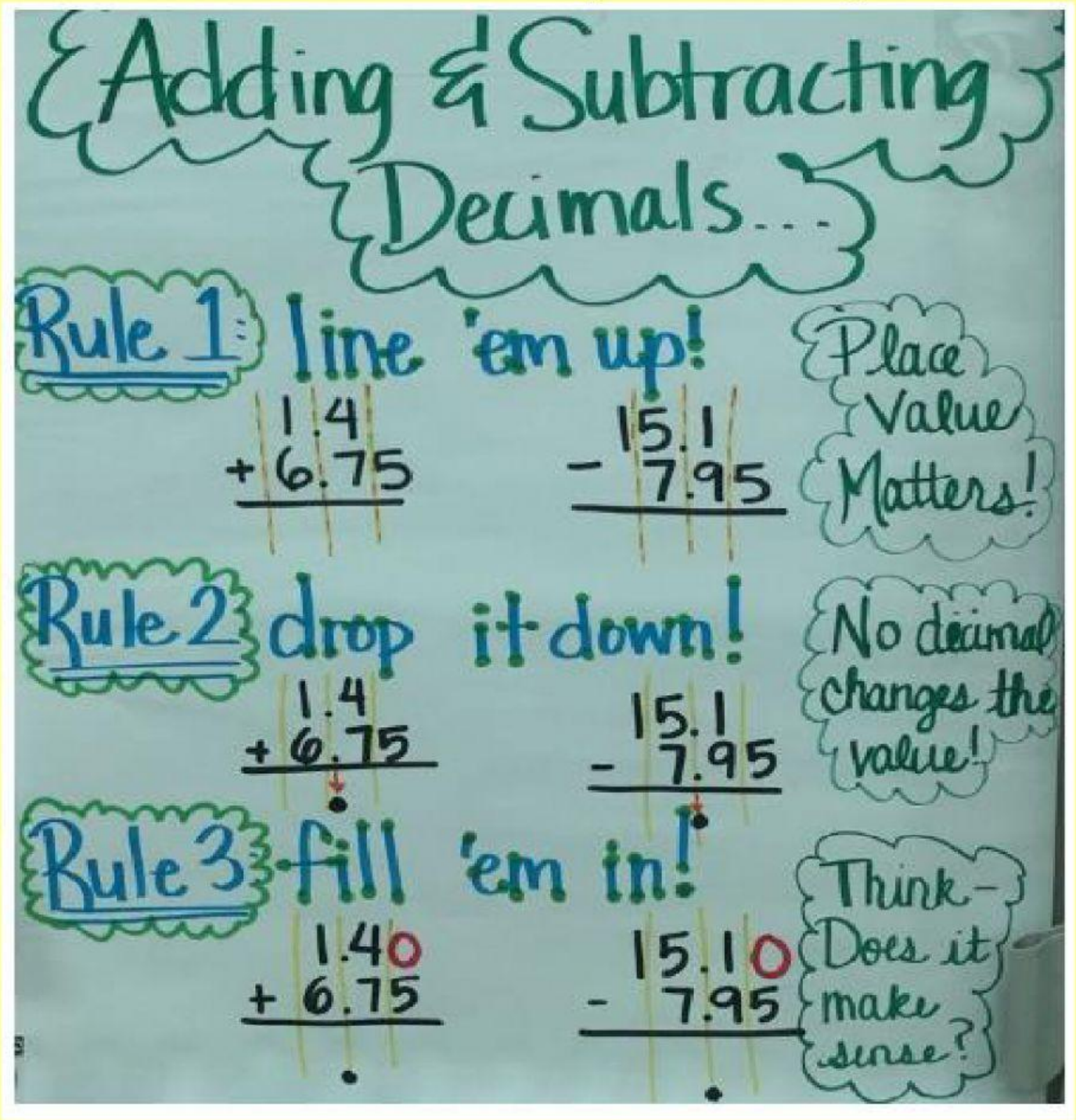
Section B. Write each money amount with a dollar sign and a decimal point.

EXAMPLE: two dollars and six-nine cents $ 2. 69

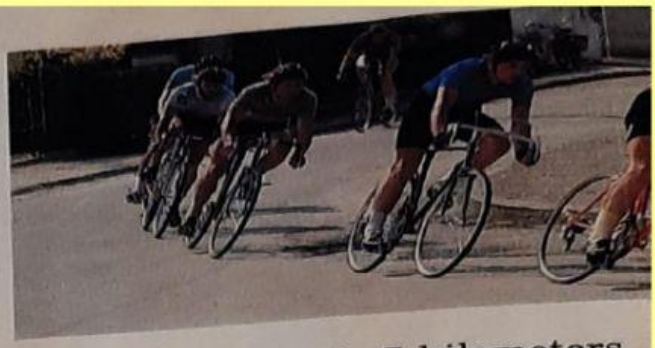
➡ twelve cents _____

➡ thirty-one dollars and fifty-three cents _____

Mathematics Word Problems Adding and Subtracting Decimals



Adding Decimals



Sam enters a bicycle race. He rides 4.36 kilometers in the morning and 2.89 kilometers in the afternoon. How many kilometers does he ride in all?

$4.36 + 2.89 = ?$

Estimate first. **Think:** 4 kilometers plus 3 kilometers equals 7 kilometers. The answer is about 7.

Step 1
Line up the decimal points. Add the hundredths.

$$\begin{array}{r} {\scriptstyle 1} \\ 4.36 \\ +2.89 \\ \hline 5 \end{array}$$

Step 2
Add the tenths.

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 4.36 \\ +2.89 \\ \hline 25 \end{array}$$

Step 3
Add the ones. Write the decimal point in the answer.

$$\begin{array}{r} {\scriptstyle 1\ 1} \\ 4.36 \\ +2.89 \\ \hline 7.25 \end{array}$$

Sam rides 7.25 kilometers in all.

PROBLEM SOLVING • APPLICATIONS

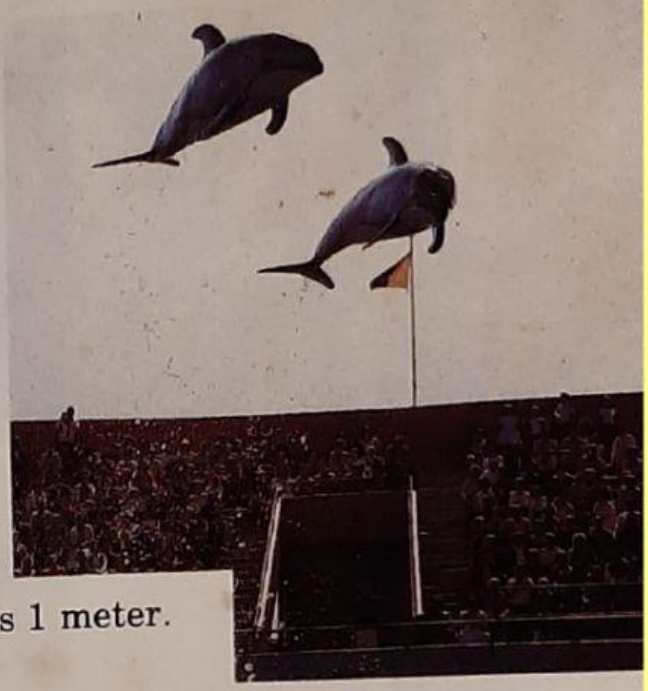
34. Sam's bicycle weighs 18.6 kilograms. Sarita's bicycle weighs the same. What is the weight of the two bicycles?

35. Fran enters a bicycle race. She travels 16.20 kilometers in the morning, 11.56 kilometers in the afternoon, and 12.24 kilometers in the evening. How far does she travel that day?

36. Evan, who placed third in a bike-a-thon, rode 16.45 kilometers. Rosa, who came in second place, rode 2.6 kilometers farther than Evan. Jody, the winner of the bike-a-thon, rode 11 kilometers farther than Rosa. How many kilometers did Jody ride?

★ 37. Lisa leaves her home and rides her bike 25.9 kilometers to Greenville. Then she returns home. Later she rides 16.8 kilometers to Faytown and returns home again. How many kilometers does she ride in all?

Subtracting Decimals



Dolly the dolphin can jump through a hoop 4.35 meters above the water. Dolores the dolphin can jump through the hoop 2.89 meters above the water. How much higher can Dolly jump?

$4.35 - 2.89 = ?$

Estimate first.
Think: 4 meters minus 3 meters equals 1 meter.
The answer is about 1.

Step 1
Line up the decimal points.
Subtract the hundredths.

$$\begin{array}{r} {\scriptstyle 2\ 15} \\ 4.3\not{5} \\ -2.89 \\ \hline 6 \end{array}$$

Step 2
Subtract the tenths.

$$\begin{array}{r} {\scriptstyle 12} \\ {\scriptstyle 3\ \not{2}\ 15} \\ 4.\not{3}\not{5} \\ -2.89 \\ \hline 46 \end{array}$$

Step 3
Subtract the ones.
Write the decimal point in the answer.

$$\begin{array}{r} {\scriptstyle 12} \\ {\scriptstyle 3\ \not{2}\ 15} \\ \not{4}.\not{3}\not{5} \\ -2.89 \\ \hline 1.46 \end{array}$$

ROBLEM SOLVING • APPLICATIONS

6. A common dolphin is 2.12 meters long. A bottle-nosed dolphin is 3.46 meters long. How much shorter is the common dolphin?

7. A bottle-nosed dolphin weighs 320.24 kilograms. A common dolphin weighs 59.78 kilograms. How much more does the bottle-nosed dolphin weigh?

8. Dolly dives to 211.65 meters beneath the surface of the water. She then rises 137.42 meters. How many meters beneath the surface is she now?

★ 39. Dolphins can swim as fast as 35.7 kilometers per hour, but their average speed is about 9.8 kilometers per hour. Dolly sometimes swims 15.3 kilometers per hour. How much slower than the fast speed is this? What is the difference between Dolly's speed and a dolphin's average speed?

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PROBLEM SOLVING PRACTICE

The Grade 6 girls are preparing for the online cookie bake sale.

1. Ms. Brown's boys got 2. 59 pounds of cookies and Ms. McKenzie's students got 3.6 pounds and Ms. Miller' s boys got 2.739 pounds of cookies. How many pounds of cookies were sold? Number sentence

2. Mrs. Smith' s girls have 7.3 cups of flour left over. Their recipe called for 5.06 cups of the flour. How much flour did they start off with before making cookies? Work back

3. In November 16. 72 pounds of cookies were sold to the school but in December two times as many cookies were sold to some other schools. How many cookies were sold in December? Logic

4. In January the School Cookie Girls spent $12.74 on flour and $28.62 on cookie decorations. they were left with $84. 33. How much money did they start with in January before the purchases? Work back

5. Shilo' s group sold 38.7 kg of cookies in 5 months. Shanya girls sold 51.116kg. How many more kgs did Shayna's group sell than Shilo' s group? Find the difference

6. Gerell and Lanaya's Group sold $\frac{1}{2}$ of their 348 cookies at the Open House PTA.

   a. How many cookies were left over? Fractions or divide

They donated $\frac{1}{2}$ of the leftovers to The Elizabeth Estates Children's Home.

b. How many more cookies do they have left to sell? Fractions or divide