Name Answers Date

Whole Numbers – Word Problems – Add, subtract, and multiply

For problems on this side, use a rate to solve. If the problem requires division, write out the division problem (e.g. 30 ÷ 6), and then write "DIVISION".

1) Hector gets paid $15 an hour. Rate

(a) How much will he get paid for 6 hours? ← given #

$6 \text{ hours} \times \frac{\$15}{1 \text{ hour}} = 6 \times 15 \div 1$

Dividing by 1 doesn't change anything

$15 \times 6 = 90$

$90

(b) How much will he get paid for 23 hours? ← Given #

$23 \text{ hours} \times \frac{\$15}{1 \text{ hour}} = 23 \times 15 \div 1$

$23 \times 15 = 115 + 230 = 345$

$345

2) A school has a ratio of 24 students to one teacher. Rate

(a) If there are 48 students, how many teachers are there? ← Given #

$48 \text{ students} \times \frac{1 \text{ teacher}}{24 \text{ students}} = 48 \times 1 \div 24$

$48 \times 1 = 48$

$48 \div 24$

DIVISION

(Answer is 2 teachers)

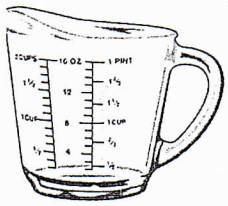
(b) If there are 48 teachers, how many students are there? ← Given #

$48 \text{ teachers} \times \frac{24 \text{ students}}{1 \text{ teacher}} = 48 \times 24 \div 1$

$48 \times 24 = 192 + 960 = 1152$

1,152 students

3) There are 2 cups in a pint, and there are 4 cups in a quart. Rate Rate



(a) How many cups are in 18 quarts? given #

$18 \text{ quarts} \times \frac{4 \text{ cups}}{1 \text{ quart}} = 18 \times 4 \div 1$

$18 \times 4 = 72$

72 cups

(b) How many cups in 18 pints? given #

$18 \text{ pints} \times \frac{2 \text{ cups}}{1 \text{ pint}} = 18 \times 2 \div 1$

$18 \times 2 = 36$

36 cups

4) My car gets 36 miles per gallon. Rate

(a) How far can my car go on 18 gallons? given #

$18 \text{ gallons} \times \frac{36 \text{ miles}}{1 \text{ gallon}} = 18 \times 36 \div 1$

$18 \times 36 = 108 + 540 = 648$

648 miles

(b) How many gallons do I need to go 9 miles? given #

$9 \text{ miles} \times \frac{1 \text{ gallon}}{36 \text{ miles}} = 9 \times 1 \div 36$

$9 \div 36$

DIVISION

(Answer is $\frac{1}{4}$ or 0.25 gallons)

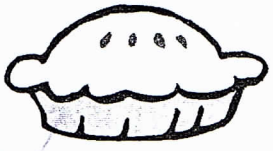
Name Answers Date

Whole Numbers – Word Problems – Add, subtract, and multiply

Problems on this side may involve adding, subtracting, or multiplying.
For each problem, first decide which operation to use.

5) A bakery sells pies.

(a) Yesterday they sold 13 pies in the morning, 28 pies in the afternoon, and 10 pies in the evening. How many pies did they sell total yesterday?



Add

$$\begin{array}{r} {}^{1}13 \\ 28 \\ +\ 10 \\ \hline 51 \end{array}$$ ← 51 pies

(b) Last week, the bakery sold 23 pies each day on average. At this rate, how many pies would they sell in 14 days? given #

Multiply

$$14 \text{ days} \times \frac{23 \text{ pies}}{1 \text{ day}} = 14 \times 23$$

$$\begin{array}{r} {}^{1}14 \\ \times\ 23 \\ \hline 42 \\ +\ 280 \\ \hline 322 \end{array}$$ 322 pies

(c) Today they sold 17 pies in the morning and 12 pies in the afternoon. If they started the day with 50 pies, how many are left?

Subtract

$$\begin{array}{r} {}^{4}\not{5}0 \\ -\ 17 \text{ morning} \\ \hline 33 \end{array}$$ pies after the morning

$$\begin{array}{r} 33 \\ -\ 12 \text{ afternoon} \\ \hline 21 \end{array}$$ ← 21 pies

---

6) A classroom has desks arranged in rows.

(a) In the math class, there are 25 students and 3 rows total. If there are 6 students in the first row and 11 students in the second row, how many are in the third row?

Subtract

$$\begin{array}{r} {}^{1}\not{2}5 \\ -\ 6 \text{ first row} \\ \hline 19 \end{array}$$ after 1st row

$$\begin{array}{r} 19 \\ -\ 11 \text{ second row} \\ \hline 08 \end{array}$$ ← 8 students

(b) The English class has 8 students in the first row, 9 in the second, and 12 in the third. How many students are there in the first three rows?

Add

$$\begin{array}{r} 8 \\ 1\,9 \\ +\ 12 \\ \hline 29 \end{array}$$ ← 29 students

(c) The science classroom has 15 rows of desks. If there are 12 students in every row, how many students are there total? Given # Rate

Multiply

$$15 \text{ rows} \times \frac{12 \text{ students}}{1 \text{ row}} = 15 \times 12$$

$$\begin{array}{r} {}^{1}15 \\ \times\ 12 \\ \hline 30 \\ +\ 150 \\ \hline 180 \end{array}$$ 180 students