

Name _____

USING EASY OR NICE NUMBERS TO UNDERSTAND AND SOLVE PROBLEMS

messy numbers:

- many non-zero digits
- many decimal places
- mixed fractional numbers
- large numerators or denominators
- unfamiliar units

examples:

- 5079432
- 29.83875
- 198 $\frac{2}{3}$
- $\frac{25}{49}$
- 19.6 kilograms

The first column lists some messy numbers.

In the second column replace each messy number example with an easy or nice number which makes sense.

In the third column explain why your replacement number is an easy or nice number.

messy number	replacement number	why replacement is easy or nice
5079432		
29.83875		
198 $\frac{2}{3}$		
$\frac{25}{49}$		
19.6 kilograms		

STRATEGY

Identify (underline or circle) the messy numbers in a problem.

Replace the messy numbers with easy or nice numbers which make sense in the problem.

Set up the problem with easy numbers.

Set up and solve the original problem.

example:

If a computer prints invoices at a rate of $\frac{2000}{1932}$ per hour, how many invoices does it print in $37\frac{1}{2}$ hours?

Set up the easy problem.

2000 invoices each hour for 40 hours

$$2000 \times 40 =$$

Set up and solve the original problem.

1932 invoices each hour for $37\frac{1}{2}$ hours

$$1932 \times 37\frac{1}{2} =$$

2. How many pieces of material that are $6 \frac{1}{4}$ yards long can be cut from a bolt of material that is $43 \frac{3}{4}$ yards long?

Set up the easy problem here:
Include a sketch.

Set up and solve the original problem here:

3. A full section of pipe is $18 \frac{1}{4}$ feet long. If 22 full sections and one-half of another section are laid end to end in a straight line, what is the total length of the pipeline?

Set up the easy problem here:
Include a sketch.

Set up and solve the original problem here:

3. During one year you spent the following on your car: gas and oil, \$1490.26; repairs, \$295.47; insurance and license fees \$650; and tires, \$275.75. If you drove 19,500 miles that year, what was the cost per mile for driving your car?

Set up the easy problem here:

Set up and solve the original problem here: