Warm up Grade 6

Date: _____

1)use the numbers 7, 0 , 6, 0, 8, 1, 0, 0

a)Write 4 numbers less than one thousandths

ones . tenths , hundredths , thousandth

0.001

0.0007

0.0008

0.0001

0.0006

b) Record you numbers in part 'a' from least to greatest

0.0001

0.0006

0.0007

0.0008

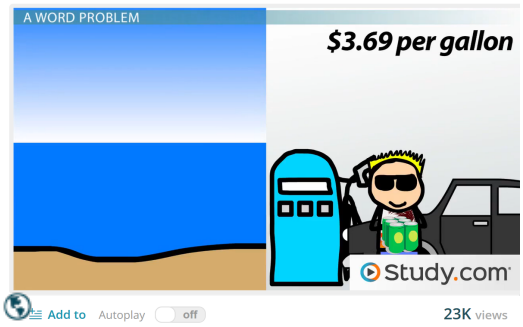
2) Give a number between 3.4560 and 3.4570

3.4561

3.4562

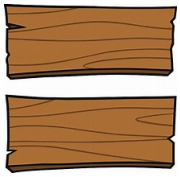
3.4563

...



You try

A board measures 7.78 m. Estimate the mass of 6 boards.



Two strategies

a) Front end estimation of decimals

-Front end we only use the leftmost place or the very last number on the left.

7.78m becomes

Estimation : $\approx 7 \times 6$

42

This is an _____
since _ is smaller than _____

b) Bench marks

- rounding to the nearest whole number or largest place value using

4 or smaller stays the same

5 or greater round up,

This is an _____
since _ is smaller than _____

7.78m becomes 8

Estimation : $\approx 8 \times 6$

$= 48$

Calculator Answer:

= 46.68 m

So our estimations

3 bags of flour have a total of 628.25 g. Estimate the mass of 1 bag of flour. (Is your estimation and under or over estimation?)

Two strategies ÷ 3

a) Front end estimation of decimals

628.25 g becomes ≈600 g

Estimation : ≈ 600 g ÷ 3

= 200 g.

The mass of 1 bag of flour is about _____

b) Bench marks

628.25 g becomes 630 g

Estimation : 630 g ÷ 3

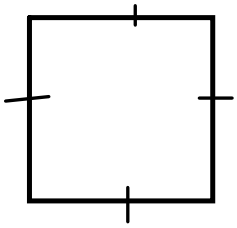
= 210 g

The mass of 1 bag of flour is about 210 g

Actual 628.25 ÷ 3

= 209.41$\overline{6}$

1) Estimate the perimeter of the square. tell if your estimate is an overestimate or an under estimate.



$\approx 5\text{cm}$

$P = S + S + S + S$

or

$P_{sq} = 4 \times \text{Side}$

$\approx 4 \times 5\text{cm}$

$\approx 20\text{cm}$

Over estimated

2) Estimate the side length of a square with a perimeter of 48.26 cm

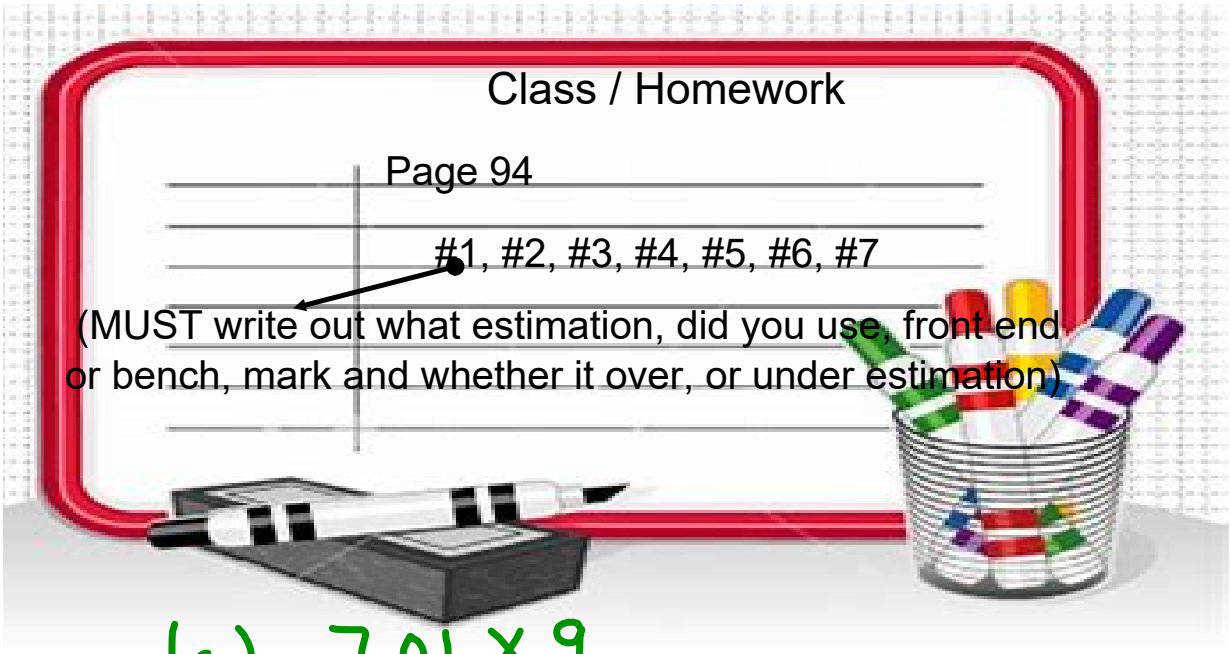
$\text{Side}_{sq} = \text{Perimeter} \div 4$

$\downarrow \approx$

$\approx 48_{\text{cm}} \div 4$

$\approx 12\text{cm}$

Under estimate



1a) 7.01×9

$\approx 7 \times 9$

≈ 63

under

Practice

1. Estimate each product or quotient. Which strategies did you use?
   Tell if your estimate is an overestimate or an underestimate.
   a) 7.01×9 **b)** 3.8×7 **c)** 11.85×5 **d)** 19.925×4
   e) $9.8 \div 5$ **f)** $12.31 \div 2$ **g)** $56.093 \div 7$ **h)** $225.3 \div 5$

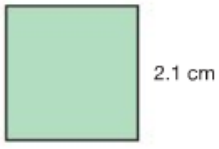
2. Waldo paid $29.85 for 3 admission tickets to the Calgary Tower.
   Estimate the cost of one admission ticket.

3. A pair of ice cleats for ice fishing costs $14.89.
   About how much will 6 pairs of ice cleats cost?
   How did you find out?

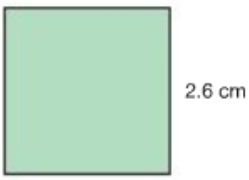
4. Estimate the perimeter of each square.
   Tell if your estimate is an overestimate or an underestimate.
   How do you know?

a)

b)



c)



5. Estimate the side length of a square with perimeter:
   a) 24.2 cm b) 29.8 cm c) 35.6 cm

6. a) Is 9.47×5 greater than, or less than, 45?
   How can you estimate to find out?
   b) Is $23.86 \div 4$ greater than, or less than, 6?
   How can you estimate to find out?
   Show your work.

7. Copy and complete. Write $>$, $<$, or $=$.
   How did you decide which symbol to use?
   a) $5.6 \times 2 \square 1.4 \times 4$ b) $4.8 \div 2 \square 15.5 \div 5$