Math 4. Class Work 27

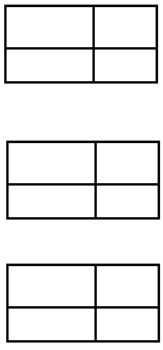
Math 4 Review

Problems

1. Evaluate
   a) $\frac{9}{16} - \frac{2}{8} =$
   b) $\frac{27}{53} : \frac{9}{53} + \frac{2}{5} =$
   c) $(0.05 + 2.5) : \frac{5}{10} =$
   d) $\frac{1.5+\frac{1}{4}}{-2.5+\frac{1}{3}:\frac{2}{9}} =$

2. Arrange the numbers in increasing order:
   a) $\left(\frac{1}{8}\right)^{100}$; 3.5^0; -7^{22}; $(-1)^{73}$; $(-8)^{30}$; $(-2)^{19}$; $\left(\frac{1}{8}\right)^{101}$

3. Remove parenthesis:
   a) $(x + 3)(x + 4) =$
   b) $(2x + 3) \cdot (x + 1) =$
   c) $(3 - x)(4x - 2) =$

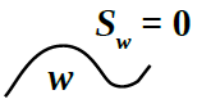


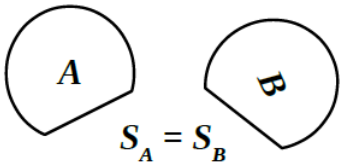
4. Solve the equations:
   a) $2x + 3 = 28$
   b) $3x - 3 = 5 - 2x$

Properties of shape Area (S)

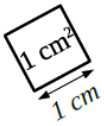
I. Congruent shapes have equal areas.

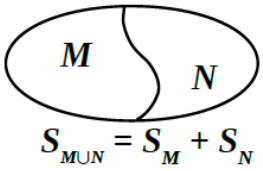
II. Any line has area zero.



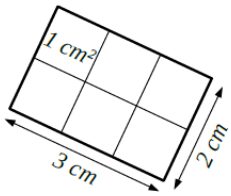


III. The area of a union of two shapes whose intersection is a line equals the sum of the areas of these shapes.

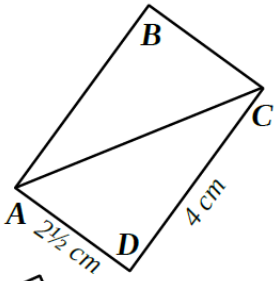




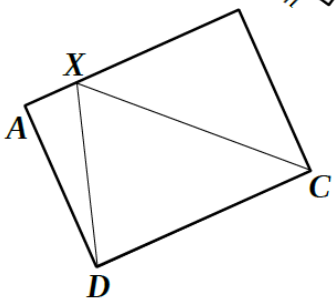
IV. The area of a square with 1 cm sides is 1 cm^2.(***Any*** *other unit may be used instead of cm*)



1. The rectangle ***ABCD*** on the drawing is split into two triangles:
   a) Find the area of rectangle **ABCD**.
   b) Compare areas of △***ABC*** and △***ACD.***
   c) Find the area of △***ABC***



2. The area of the rectangle ABCD on the drawing is ***x***. Show that the area of the △***DXC*** is ½***x***.



Word problems:

Rate is = quantity/ per unit time

1. A pool can be filled by the first pipe in 5 hours, by the second pipe in 6 hours, and by the third pipe in 8 hours. The water from the fully filled pool can be drained in 10 hours. At 8 am, all three pipes were opened, but someone forgot to close the drain pipe. At what time will the pool be completely filled?
   Hits: Start by determining how much of the pool each pipe fills in 1 hour (the rates)
   Then, the Time x Combined Rates = one pool filled

2. To create a special blend of coffee beans, a barista combined 7 parts of Arabica beans, 4 parts of Robusta beans, and 2 parts of Excelsa beans. The Arabica and Excelsa beans together weighed 3 kg 600 g. What was the total weight of the coffee bean blend the barista prepared?

3. A car travels 225 km in 3 hours. What is the distance that the car will travel in 4 hours?
   Can you convert the distance to miles if 1.6 km is 1 mile?