MATH 4: Homework 11

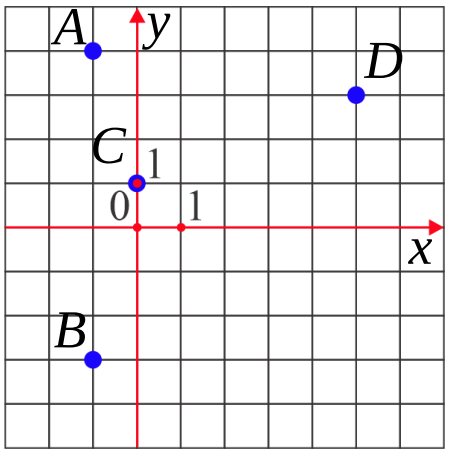
Due December 16, before the start of the class

Homework must be submitted on time—at least 15 minutes before the start of the class. Homework will not be graded after the solutions are posted on Google Classroom.

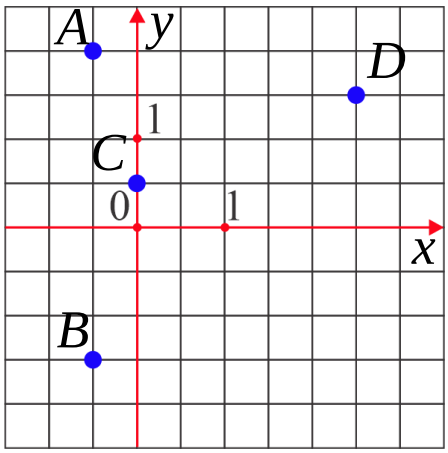
Write the answers on separate sheets of paper, not between the lines.

1. Find the coordinates of points A, B, C, D in two coordinate systems with different units; 1 = one or two lengths of a square side.

a.



b.



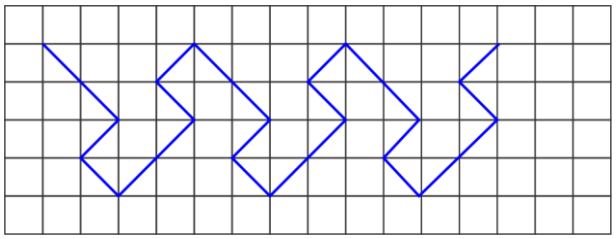
2. Evaluate:

$a.\ \ 123 + 230;$	$b.\ 230 - 123;$	$c.\ \ 123 - 230;$
$d.\ \ 68 + (-75);$	$e.\ \ -75 + 68;$	$f.\ \ -75 - (-68);$

3. Evaluate:

$a.\ \ (-7) \cdot (-3);$	$b.\ (-7) \cdot (+3);$	$c.\ \ 7 \cdot (-3);$
$d.\ \ (+6) \cdot (+4);$	$e.\ \ -6 \cdot 4;$	$f.\ 6 \cdot (-4);$

4. Copy the picture to your notebook and continue the pattern (use a ruler!):



5. Write absolute values of the numbers:
   Example: $|5| = 5; \quad |-9| = 9$
   $5, \quad -9, \quad 3, \quad 10, \quad -25, \quad -40, \quad 40$

6. Find two fractions which are
   $a.$ greater than $\frac{1}{3}$ but smaller than $\frac{2}{3}$
   $b.$ greater than $\frac{2}{5}$ but smaller than $\frac{3}{5}$

7. Evaluate (simplify first if possible!):
   $a. \ \frac{6}{7} \cdot \frac{7}{12} : \frac{5}{16}; \qquad b. \ \frac{7}{25} : \frac{3}{10} \cdot \frac{5}{6}; \qquad c. \ \frac{2}{9} \cdot \frac{3}{7} : \frac{5}{12}; \qquad d. \ \frac{9}{10} : \frac{10}{11} \cdot \frac{100}{21}$

8. 6000 people live in three villages. In the first village, there are twice as many inhabitants as in the second village. In the third village, the number of inhabitants is 500 less than in the first one. How many people live in each village?