## Math 3 Homework 14

Calculate:
a) $999+1=$
$199+1=$
$79+1=$
$629+1=$ $1000-1=$
$810-1=$
$500-1=$
$1991-1=$
b) $2000+400+30+1=$
$9000+30+3=$

$$
\begin{aligned}
& 7000+20+7= \\
& 1000+700+20+6=
\end{aligned}
$$

c) Calculate the fastest way (rewrite the expression to show your way of calculation):

$$
\begin{array}{ll}
(303+274)+26= & 81+(9+27)= \\
(437+92)-37= & (364+415)-264=
\end{array}
$$

d) Increase the numbers in 10 times: 60, 600, 15, 150, 435
a) Determine order of operations and calculate:

$$
\begin{array}{ll}
800-420-120+40= & 800-(420-120)+40 \\
800-420-(120+40) & 800-120+8 \times 20=
\end{array}
$$

b) Insert parentheses to make the equations correct:
$32-2 \times 6+3=183$
$32-2 \times 6+3=17$
$32-2 \times 6+3=23$
$32-2 \times 6+3=270$
a) Put all weights in order from the heaviest to the lightest:
$2 \mathrm{~kg}, \quad 1 \mathrm{~kg} 900 \mathrm{~g}, \quad 250 \mathrm{~g}, \quad 25 \mathrm{~kg}, \quad 2,500 \mathrm{~g}, \quad 2 \mathrm{~kg} 50 \mathrm{~g}$
b) Put all lengths in order from the smallest to largest:
$3 \mathrm{~m} 3 \mathrm{dm}, \quad 30 \mathrm{dm}, \quad 333 \mathrm{~cm}, \quad 3 \mathrm{dm} 3 \mathrm{~cm}, \quad 303 \mathrm{~cm}$
$\qquad$

Let's count angles.
How many angles are on the sketch below? Name all angles using capital letters and
list all angles here: $\qquad$
list only obtuse angles here: $\qquad$
list only acute angles here: $\qquad$
If you are not sure, use the right angle template to confirm your answer:


5 What types of angles are formed by the hour hand and the minute hand on the clock face at the following times (right, obtuse, acute, straight) ?
a) 3 o'clock - angle $\qquad$ b) 4 o'clock - angle $\qquad$
c) half past 9 - angle $\qquad$ 11 o'clock - angle $\qquad$

Using the squared piece of paper below, draw a rectangle with a length of 8 square segments and the width of 6 square segments.

Find the perimeter of the rectangle you draw. $\mathrm{P}=$ $\qquad$
With one straight line, divide the rectangle into two identical rectangles.
Find the perimeter of each smaller rectangle.
Consider two different cases. $\mathrm{P}_{1}=$ $\qquad$

$$
\mathrm{P}_{2}=
$$

$\qquad$

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Construct a line parallel to the line $\mathrm{A}_{0} \mathrm{~A}_{2}$ on the distance of 3 cm away from line $\mathrm{A}_{0} \mathrm{~A}_{2}$. Call it $\mathrm{B}_{0} \mathrm{~B}_{2}$ Reminder:
1 Use your protractor to draw a line that goes through $A_{0}$ and is at $90^{\circ}$ to the line $\mathrm{A}_{0} \mathrm{~A}_{2}$.
2. Use a ruler and measure the distance of 3 cm from the point $A_{0}$. Label the point $B_{0}$
3. Repeat the procedure for the point $A_{2}$.
4. Connect points $B_{0}$ and $B_{2}$ by a straight line.


A circle with center $A$ is drawn on 1 cm grid paper as shown below. What is the radius of the circle?
Draw another circle with a radius 2 times less than the radius of the circle on the picture.


Reminder: $\quad$ Adjacent angles share a side and a vertex.
Complementary angles have measures that add up to 90 degrees.
Supplementary angles have measures that add up to $180^{\circ}$ degrees.
a) Find the pairs of supplementary angles and circle these pairs:
$15^{0}$ and $165^{0}$
$30^{\circ}$ and $155^{0}$
$45^{0}$ and $125^{0}$
b) Find the pairs of complementary angles and circle these pairs:

$$
15^{0} \text { and } 75^{\circ} \quad 25^{\circ} \text { and } 65^{\circ} \quad 20^{\circ} \text { and } 60^{\circ}
$$

We know that:

- Angles $\boldsymbol{a}$ and $\boldsymbol{c}$ are complementary angles
- The measure of angle $\boldsymbol{d}=124^{0}$
- The measure of angle $\boldsymbol{c}=56^{0}$
- Angles $\boldsymbol{c}$ and $\boldsymbol{e}$ have equal measures.

Find: The measure of angle $\boldsymbol{b}$.

Angle $\boldsymbol{b}=$


## Long multiplication.

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Use long multiplication to find answers to each of the following problems:
$44 \times 7=$
$65 \times 3=$
$45 \times 4=$

12
Use partial method to solve:
$123 \times 14=$
$123 \times 45=$
$123 \times 60=$

The table below consists of 8 columns and 6 rows. Is it possible to place check mark symbols in such a way?
a) to get 4 check marks in each row and 3 check marks in each column?
b) to get 3 check marks in each row and 2 check marks in each column?


