# Math 3 Homework 14

This is your first do it all by yourself and time yourself while doing it page!

Time start: _____

Time finished:_____

**1**

Calculate:

a) 999 + 1 = 199 + 1 = 79 + 1 = 629 + 1 =

1000 – 1 = 810 – 1= 500 – 1 = 1991 – 1 =

b) 2000 + 400 + 30 + 1 =_____ 7000 + 20 + 7 =_____

9000 + 30 + 3 =_____ 1000 + 700 + 20 + 6 =_____

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

(303 + 274) + 26 =_____ 81 + (9 + 27) =_____

(437 +92) – 37 = _____ (364 +415) – 264 =_____

d) Increase the numbers in 10 times: 60, 600, 15, 150, 435

_____

**2**

a) Determine order of operations and calculate:

800 – 420 – 120 + 40 = _____ 800 – (420 – 120) + 40=_____

800 – 420 – (120 + 40)=_____ 800 – 120 + 8 × 20 =_____

b) Insert parentheses to make the equations correct:

$32 - 2 \times 6 + 3 = 183$ $32 - 2 \times 6 + 3 = 17$

$32 - 2 \times 6 + 3 = 23$ $32 - 2 \times 6 + 3 = 270$

**3**

a) Put all weights in order from the heaviest to the lightest:

2 kg, 1kg 900g, 250g, 25kg, 2,500g, 2kg 50g

_____

b) Put all lengths in order from the smallest to largest:

3m 3dm, 30dm, 333cm, 3dm 3cm, 303cm

_____

**Report the time you spent: _____**

**4**

Let's count angles.

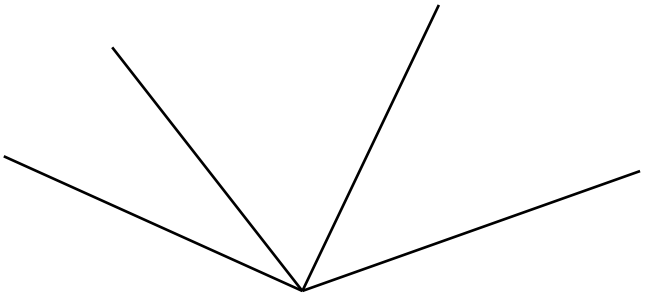
How many angles are on the sketch below? Name all angles using capital letters and

list all angles here: _____

list only obtuse angles here: _____

list only acute angles here: _____

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 _____ b) 4 o'clock - angle _____

c) half past 9 - angle _____ 11 o'clock - angle _____

**6.**

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. P = _____

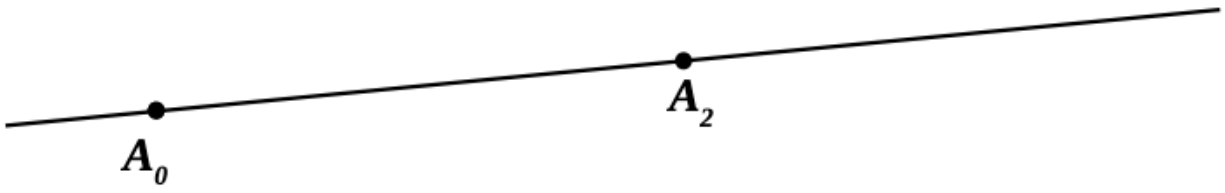
With one straight line, divide the rectangle into two identical rectangles.

Find the perimeter of each smaller rectangle.

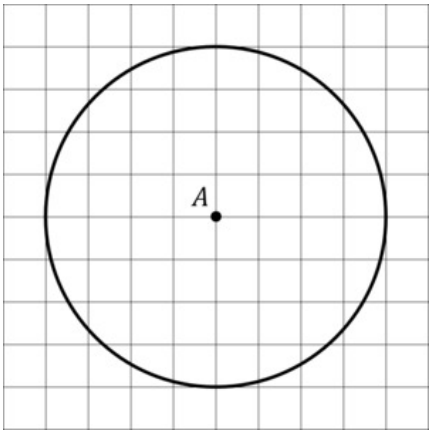
Consider two different cases. $P_1$ = _____ $P_2$ = _____

## HW 14 Constructing a middle of the segment. Supplementary and Adjacent angles

**7** There are two points $A_0$ and $A_1$ on the line. Using only a compass and a straightedge (no ruler! Don't measure the distance between two points), find a middle of the line segment $A_0$ $A_1$ and label it as a point **B.**




**8** A circle with center *A* is drawn on 1cm 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.




**9** *Reminder:* ***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* $180^0$ *degrees.*

a) Find the pairs of supplementary angles and circle these pairs:

$15^0$ and $165^0$ $30^0$ and $155^0$ $45^0$ and $125^0$

b) Find the pairs of complementary angles and circle these pairs:

$15^0$ and $75^0$ $25^0$ and $65^0$ $20^0$ and $60^0$

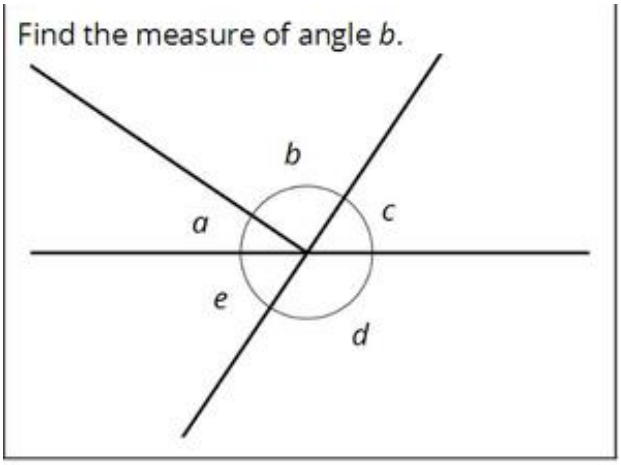
## HW 14 Constructing a middle of the segment. Supplementary and Adjacent angles

**10**

We know that:

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

Find: The measure of angle ***b.***




Angle ***b*** =

**11**