## school nova.

## Homework 9

1. How many right angles does each quadrilateral below have? Right the number inside quadrilateral.

2. Cross out the angles that are not right angles. (use your right angle template to check)

3. One penny out of 3 is fake. It could be lighter or heavier than others. How can you identify the fake coin by using a balance scale like the one shown in the picture? How may time should you weight?

4. 

> In your notebook, draw pictures, identical to these:

5.
a) Draw 5 line segments, which connect some points in the drawings to obtain 5 triangles. Write down the names of the triangles.
B
-
A
C
A

Triangles: $\qquad$
b) Connect the appropriate points to obtain:

1) A triangle with a right angle (use a right angle template).

B•
$\boldsymbol{F}^{\bullet}$
. $E$
2) A quadrilateral with a right angle.

$$
\begin{array}{cc}
B^{\bullet} & \bullet D \\
& \\
& \\
& \\
& \\
& \\
& \\
&
\end{array}
$$

3) A quadrilateral with two right angles.

$$
\begin{aligned}
& \text { B. } \\
& \text { C. } \\
& \text { A. } \\
& \text { - E } \\
& \text {. } F
\end{aligned}
$$

Label all right angles with numbers.
6.

Solve for x . Use diagrams. Check your answers.

$$
672-x=162 \quad x+281=503 \quad x-127=381
$$


7.

An engineer has proposed the design for Wonder-burg's subway network. How many lines did he propose? Trace them to help you.

How many lines pass through the station "Odin" ? How many through the station "Hercules"?

What stations should one pass through to get from "Theseus" to "Cyprus"?

What is the shortest way to get from "Mount" to "Wild"? How many different ways can you go from "Mount" to "Wild" with only one transfer?

How many different ways can you get from "Midas" to "Hercules" with only one transfer?

8. Circle all of the rectangles. Draw a $\checkmark$ check mark inside all of the squares.

9.
a) The length of a rectangle is 37 cm and its height is 14 cm . Calculate the perimeter of the rectangle.

$$
\mathrm{P}=
$$

$\qquad$
b) The length of a rectangle is 37 cm , which is 14 cm more than its height. Calculate the perimeter of the rectangle. $P=$ $\qquad$
10. A polygonal chain has 3 segments. The length of the first segment is 5 cm , the length of the second segment is 1 cm shorter, than the length of the first one and the length of the third segment equals the sum of the $1^{\text {st }}$ and $2^{\text {nd }}$ segments. Finds the total length of the polygonal chain in. Draw this chain.
11.

Write down an equation and solve it:
a) The first addend is unknown, the second in 138 . The sum is 207 . Check!
$\qquad$
$\qquad$
$\qquad$
$\qquad$
b) Subtract 471 from $x$ and get 529
$\qquad$
$\qquad$
$\qquad$
$\qquad$
12. Arrange the sets appropriately:


Animals

Furry animals

Cats

Dogs
13.

$$
\begin{gathered}
45 \\
+\quad 2
\end{gathered} \begin{gathered}
9 \\
\hline 856
\end{gathered} \begin{gathered}
38 \\
\hline 246
\end{gathered} \begin{gathered}
3 \\
\hline 592
\end{gathered} \begin{array}{r}
71 \\
\hline 487
\end{array}
$$

