# Problems of the Day Math 10 2019-20 

Welcome to the problem of the day!

## Instructions

$\checkmark$ Create a section for PODs in your notebook
$\checkmark$ Number each POD
$\checkmark$ Show ALL your work - scratch work is good!
$\checkmark$ Name your strategy
$\checkmark$ Make up the ones you miss
$\checkmark$ Have them checked at notebook check

## POD\#1

Find the fraction and percentage of the class that has a birthday in

1. April
2. July
3. August
4. November

## POD \#2

Find as many side lengths and angle measures as you can for the figure at right.

| $\mathrm{AB}=$ | $\angle \mathrm{CAB}=$ |
| :--- | :--- |
| $\mathrm{BC}=10 \mathrm{~cm}$ | $\angle \mathrm{ABC}=$ |
| $\mathrm{AC}=14 \mathrm{~cm}$ | $\angle \mathrm{BCA}=$ |
|  | $\angle \mathrm{BCD}=$ |
| $\mathrm{DE}=12 \mathrm{~cm}$ | $\angle \mathrm{CCE}=60$ |
| $\mathrm{EC}=10 \mathrm{~cm}$ | $\angle \mathrm{CDE}=$ |
| $\mathrm{DC}=$ | $\angle \mathrm{DEC}=70$ |
|  | $\angle \mathrm{ECA}=$ |



## POD \#3

Find x . It's easier than you think; each problem has extraneous information!





## POD \#4

## Problem 1 :

In the parallelogram given below, find $\angle B, \angle C$ and $\angle D$.


## Problem 2 :

In the parallelogram $A B C D$ given below, find $\angle A, \angle B, \angle C$ and $\angle \mathrm{D}$.


## POD \#5

In the parallelogram given below, find the measures of $\angle A$ and $\angle C$.


## POD \#6

Estimate the angle measures of this right triangle by sight.

Then verify your answer using

trigonometry if the two legs are 8 cm and 11 cm long. Round to the nearest degree.

## POD \#7

Sketch the following:
a. an equilateral triangle. Label sides and angles with tick marks and arcs
b. an isosceles triangle
c. a scalene triangle
d. a right triangle with a 30 degree angle. Label all the angle measures.
e. an obtuse triangle

POD \#8
Solve the following:

1. $X+6=-30$
2. $x / 5=-2$
3. $x^{2}+5=54$
4. $4 x+10=5$
5. $x / 3-4=-2$
6. $3(x+2)=24$

## Evaluate:

## POD \#9

$$
\begin{aligned}
& \text { a. } 3^{2}+(1-2) \\
& \text { b. }(9-4)-8+1 \\
& \text { c. } 8+4^{*} 3^{3} \\
& \text { d. } \sqrt{144}+10 /(5-3) \\
& \text { e. } \frac{(8+2)(14-4)}{10^{2}}
\end{aligned}
$$

## POD \#10

Solve the triangle


