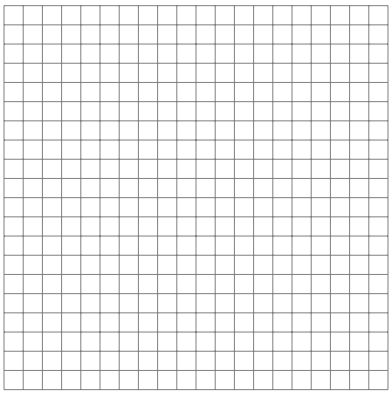
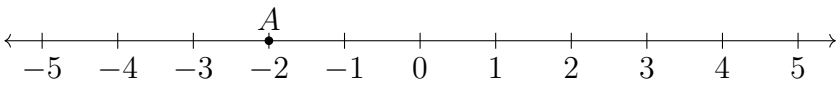
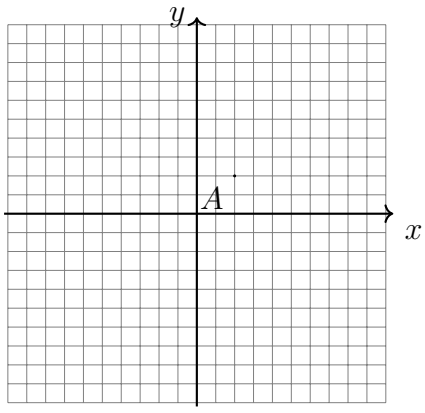
Graphs

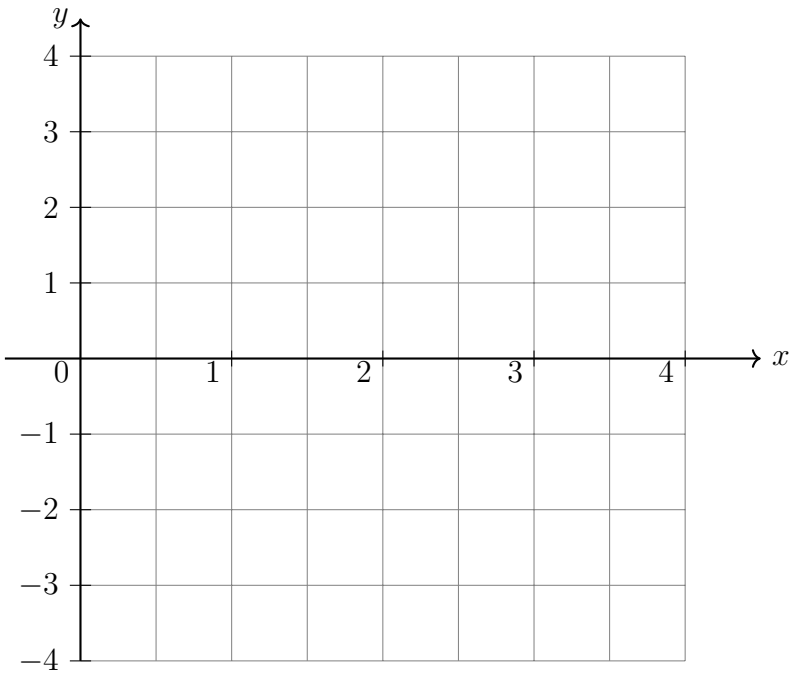
tikz grid command

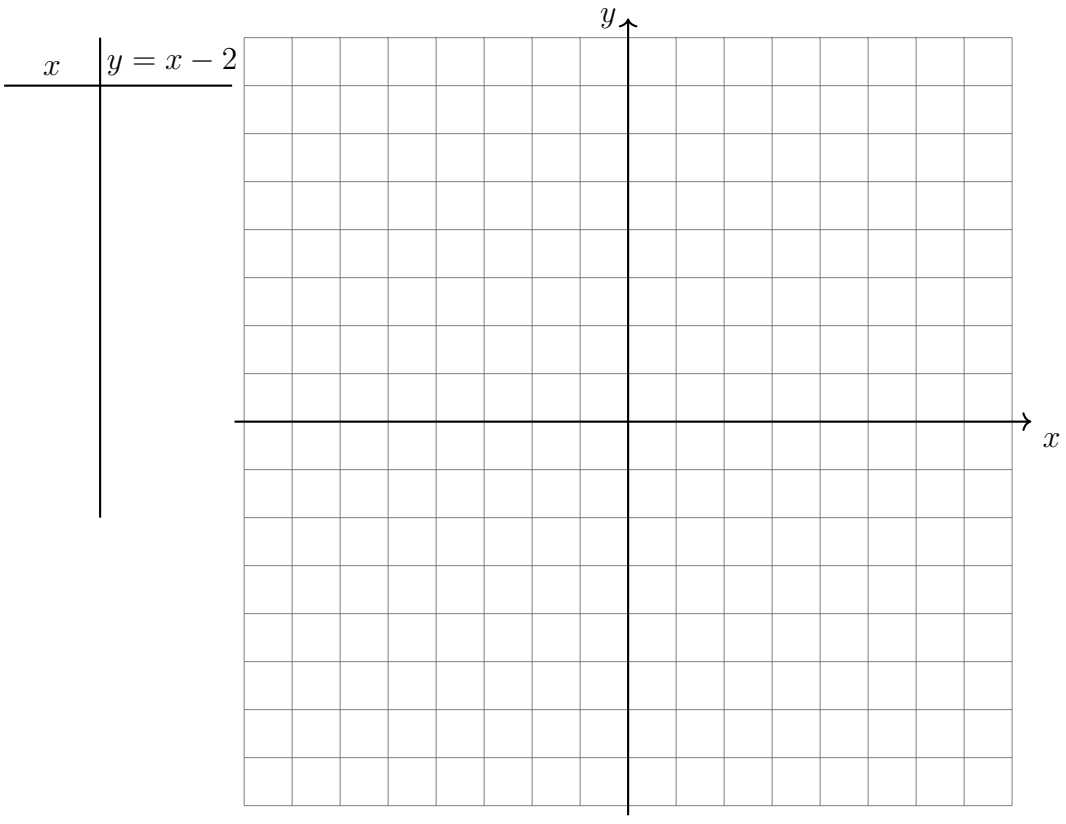


Axes



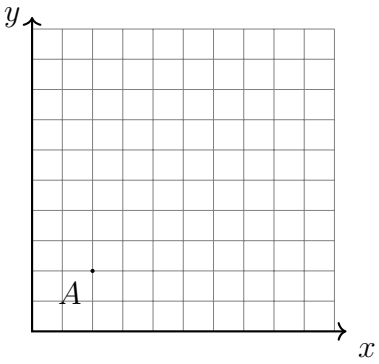


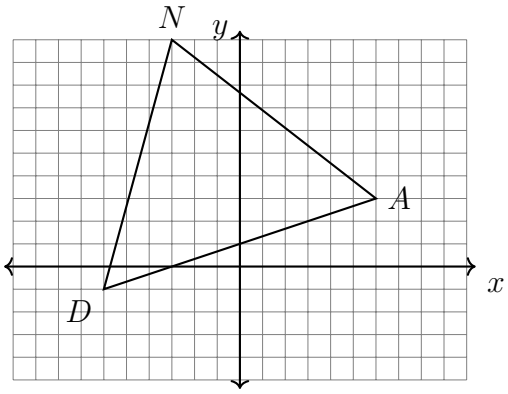




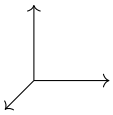
Triangle DAN is graphed on the set of axes below. The vertices of $\triangle DAN$ have coordinates $D(-6,-1), A(6,3),$ and $N(-3,10)$.

Figure 1: x and y axes for grid



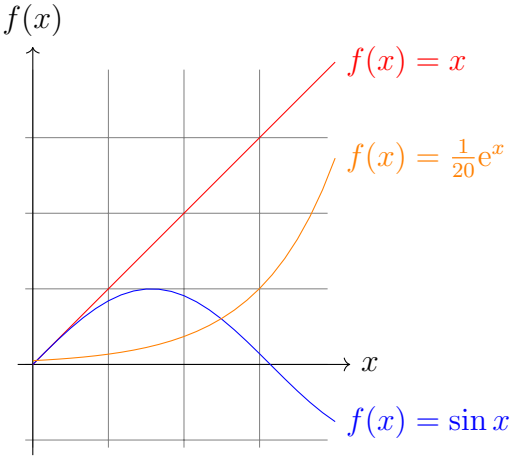


What is the area of $\triangle DAN$?

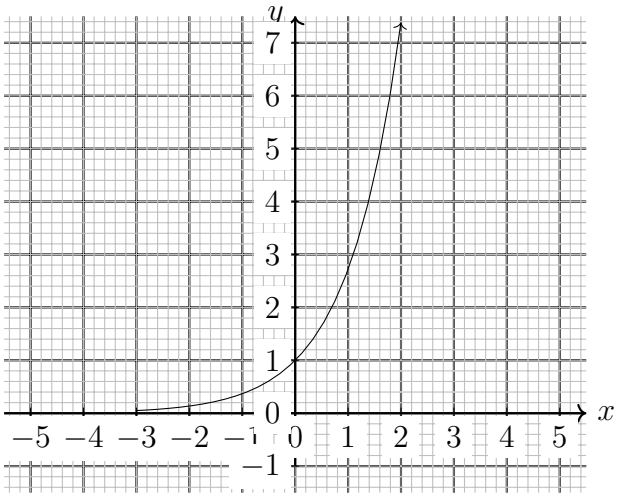


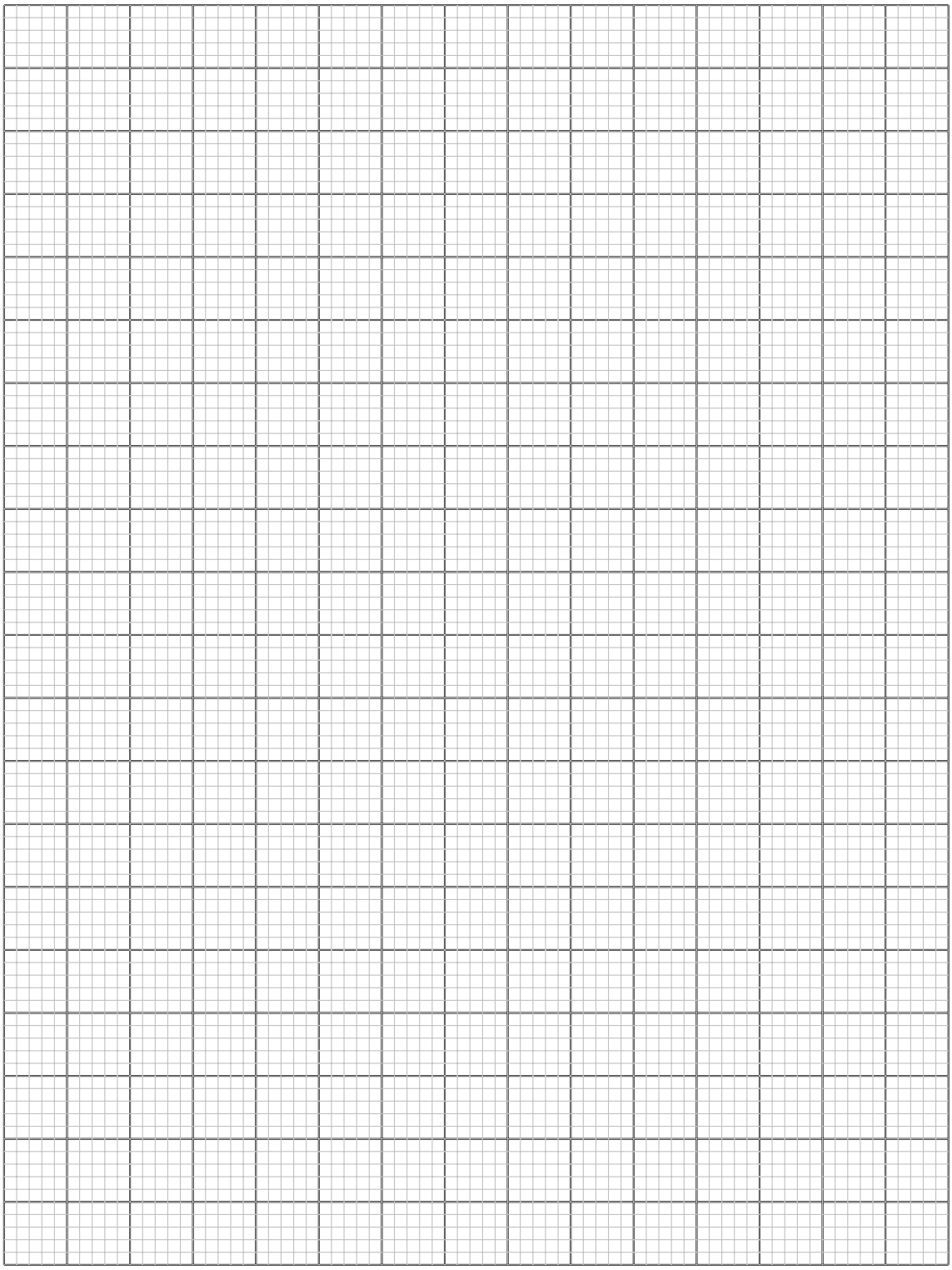
plot functions

Use brackets around expressions, especially those having parenthesis



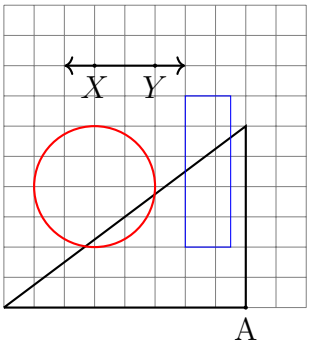
Axis numbering

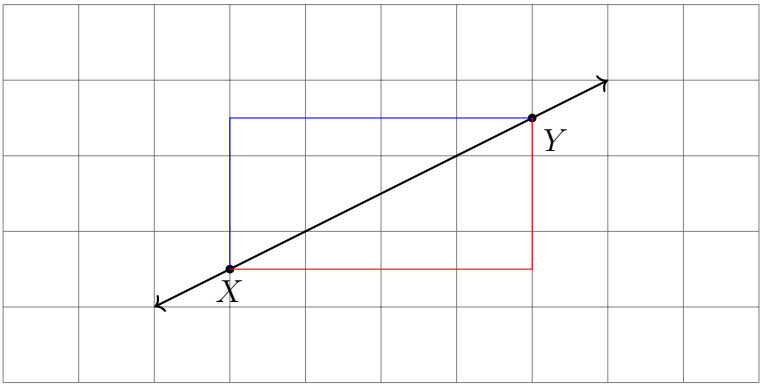

y
x
7
6
5
4
3
2
1
0
−1
−5 −4 −3 −2 −1 0 1 2 3 4 5

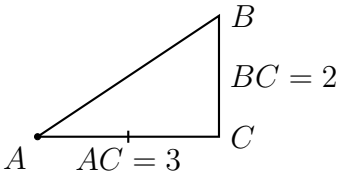


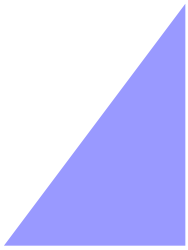
Drawing lines and shapes

tikz draw command, node labeling function

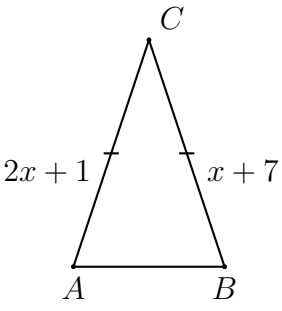


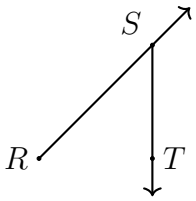






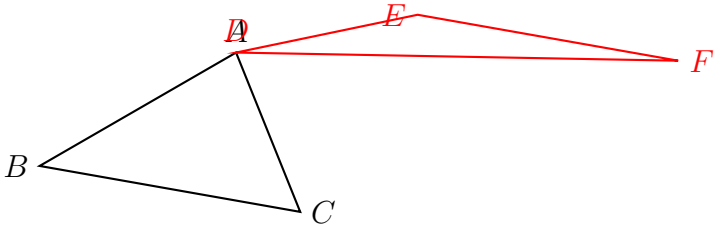
Given $\triangle ABC$ with $\overline{AC} \cong \overline{BC}$. $AC = x + 7$ and $BC = 2x + 1$. Find AC.



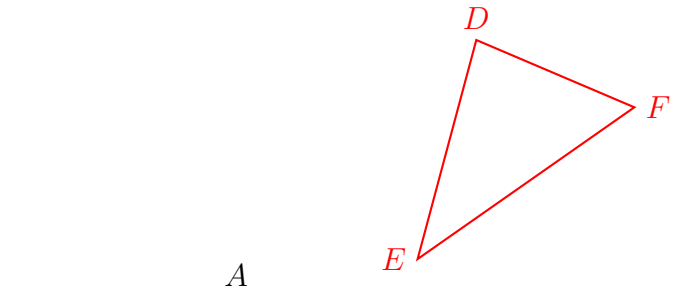


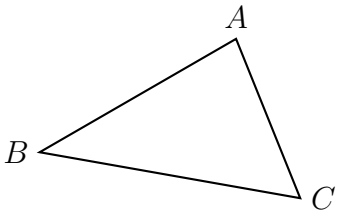
Triangles

Shift using coordinates

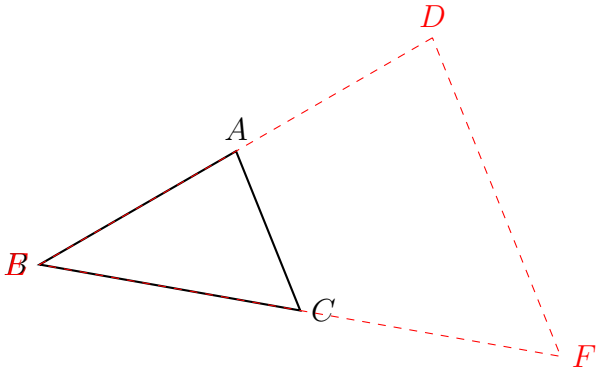


Shift and rotate

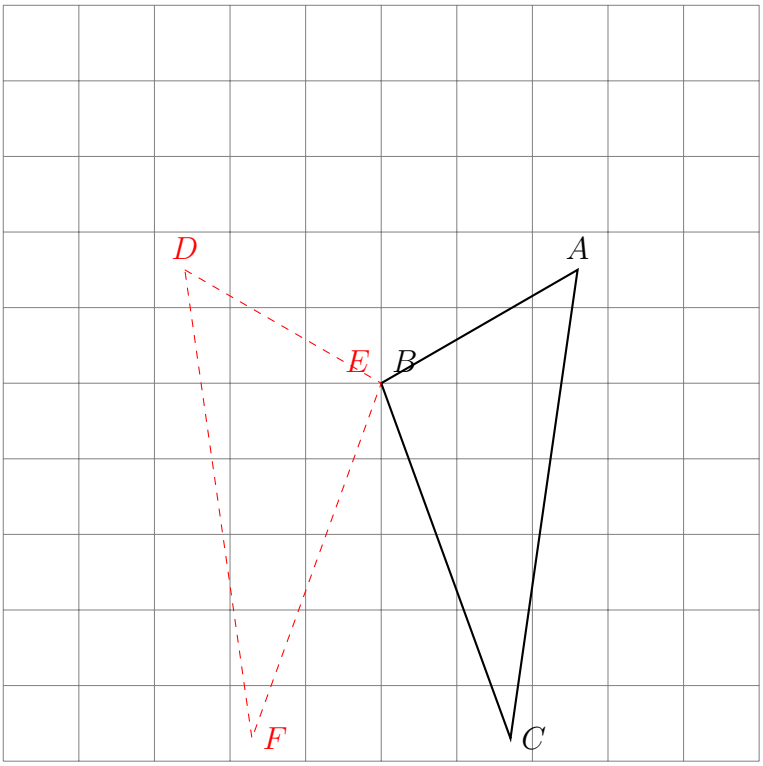




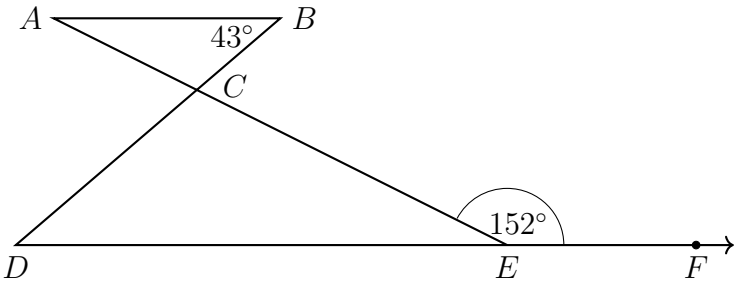
Scale

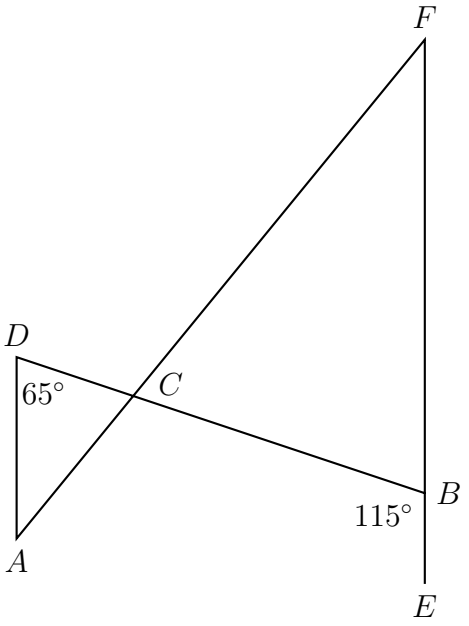


Reflect

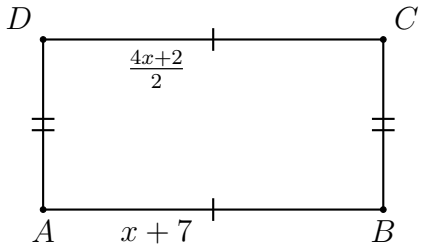


Complex Regents angle problems



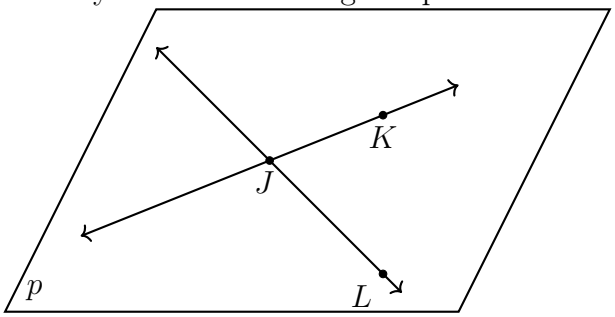


Given the rectangle $ABCD$ with $\overline{AB} \cong \overline{CD}$ and $\overline{BC} \cong \overline{DA}$. $AB = x + 7$ and $CD = \frac{4x+2}{2}$. Find AB.

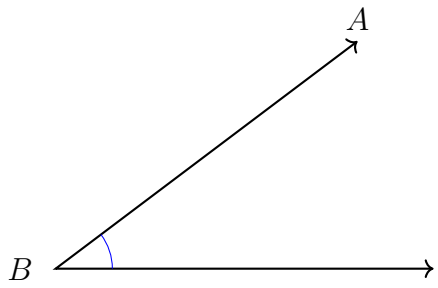


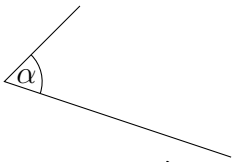
Plane geometry

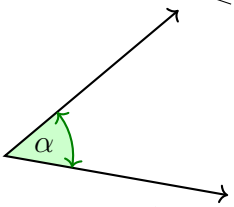
Identify two lines in the given plane.

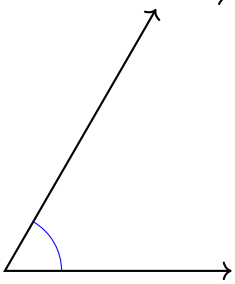


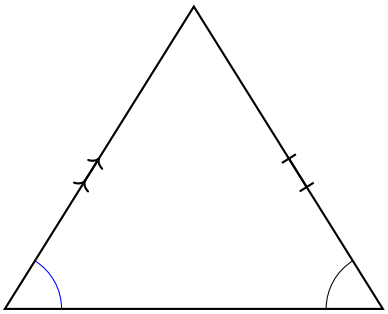
Marking angles

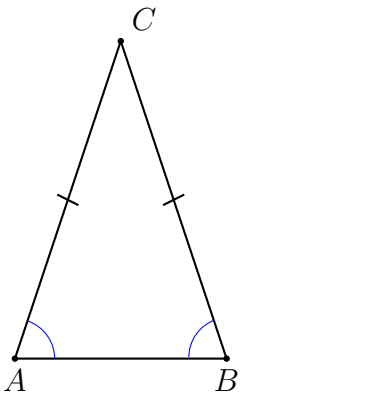


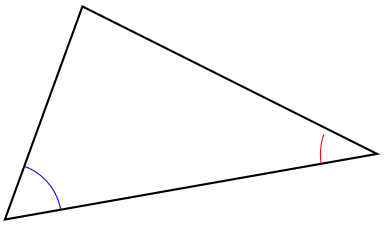


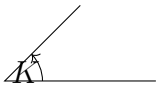


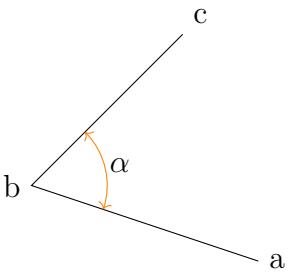




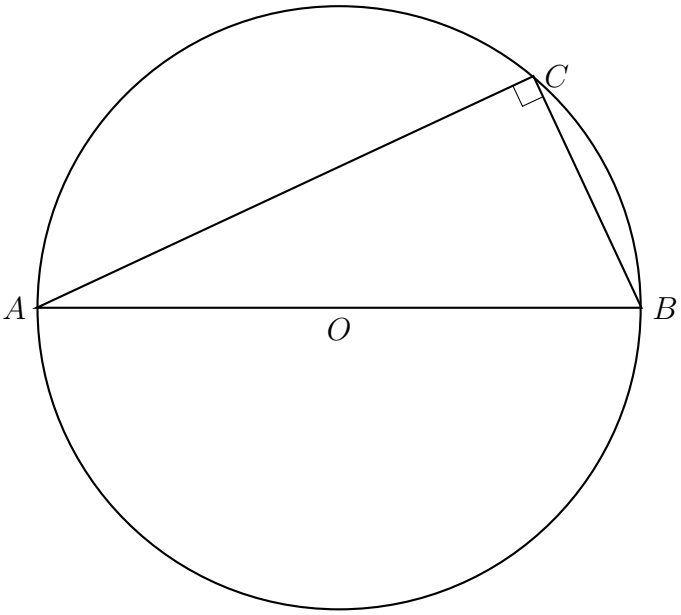

C
A
B

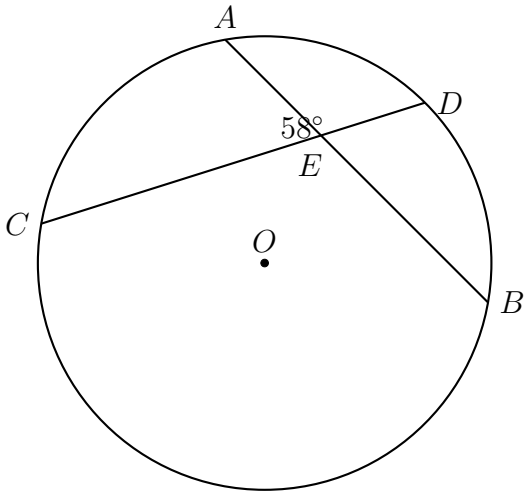



K

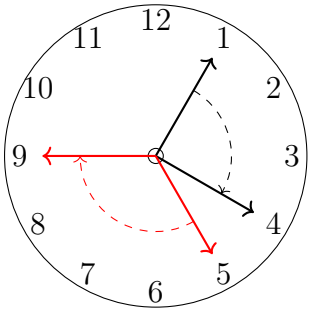

c
α
b
a

Circles



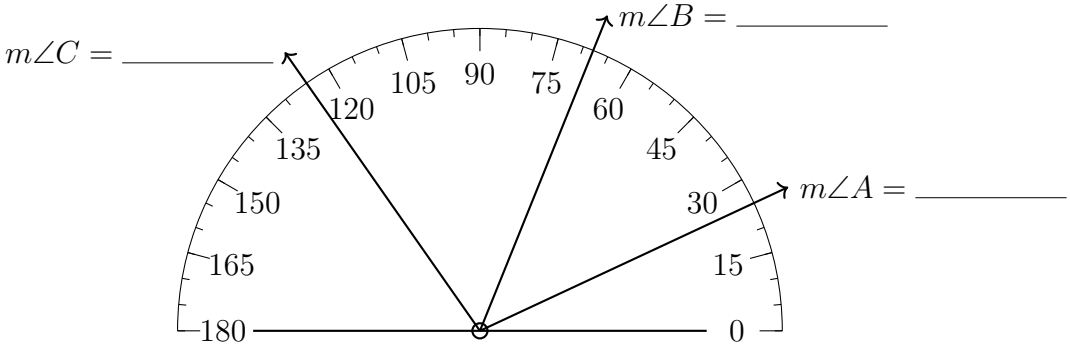


foreach examples (circular)



Clockface

Use the image of the protractor to measure each of the angles.


$m\angle C =$ _____
$m\angle B =$ _____
$m\angle A =$ _____
180
165
150
135
120
105
90
75
60
45
30
15
0

Images