Math 3 Homework 12

1 Compare the expressions without calculating its values. Use <, >, =

9×50 ___ 90×5	40×3 ___ 20×6	200×3 ____ 20×30
80×5 ___ 8×20	15×8 ___ 80×5	50×6 ____ 30×5

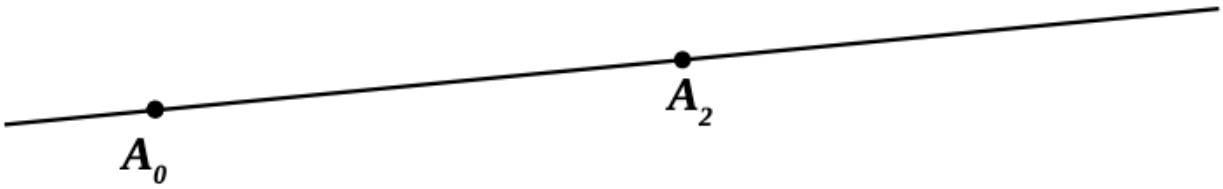
2 Insert the sign "–" where needed to make the equality correct:

6 1 5 1 4 1 3 1 = 1

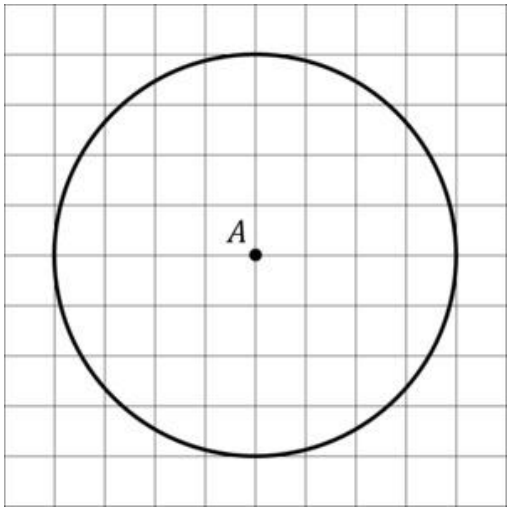
3 A bug is moving along a straight line. It started moving from the position A_0 and in 2 minutes went into position A_2. Using a compass and a straightedge find

a) the position of the bug after the first minute (point A_1)

b) the position of the bug after 3 minutes (point A_3).



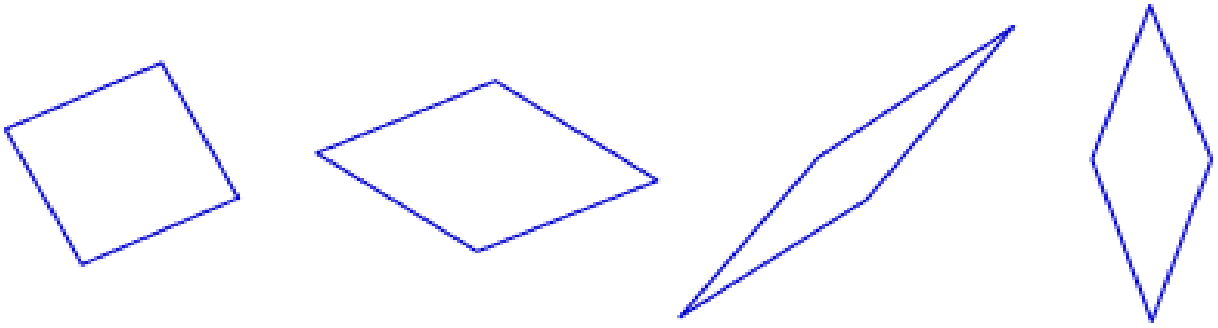
4 Imagine that a circle with center A is drawn on 1cm grid paper as shown below. What is the radius of the circle?



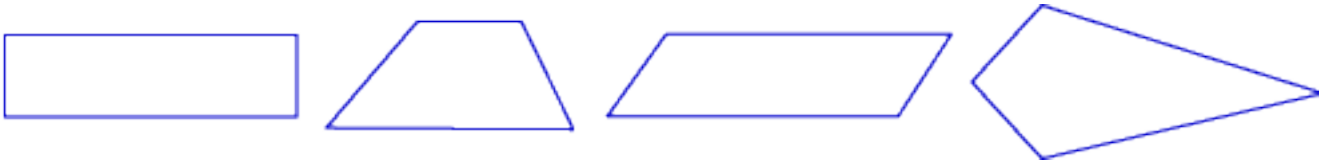
5 A few things around us that are circular in shape are a car tire, a wall clock that tells time, and a lollipop. Give at least two more example of the things with a circular shape around us.

_____ _____

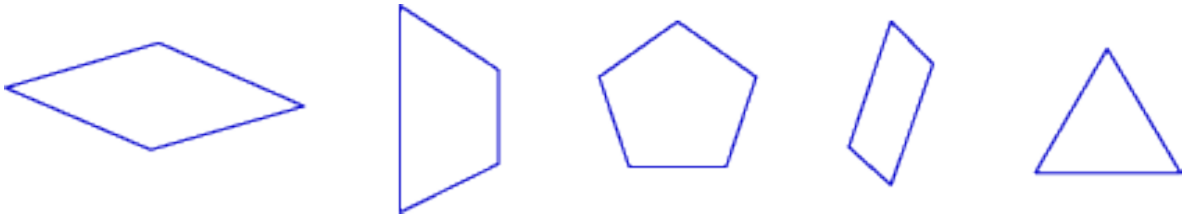
6 All of these figures have something in common.



None of these figures has it.



Which of these figures has it?



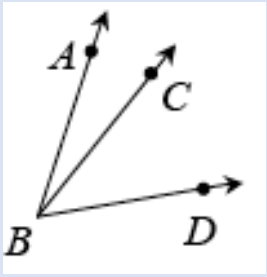
Explain. _____

7 Compare using <, > or =:

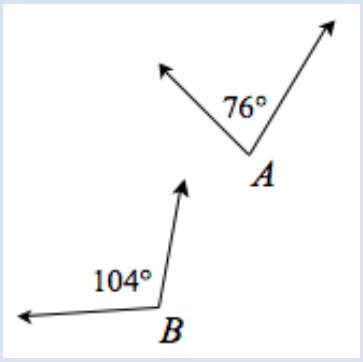
810 cm ____ 8 m	7 m _____ 75 cm	1m _____ 100mm
6m 57cm ____ 657cm	360 cm _____ 3m 60mm	365mm ____ 36m 5mm

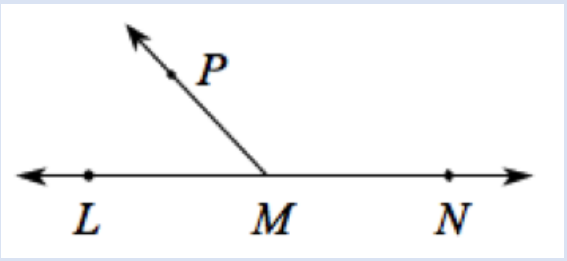
REMINDER: THE DIFINITIONS OF ADJUCENT AND SUPPLEMENTARY ANGLES:

Adjacent angles: Two **angles** are **Adjacent** when they have a common side and a common vertex (corner point) and don't overlap. In the example at right, ∠ABC and ∠CBD are adjacent angles.



Supplementary angles: Two angles A and B for which A + B = 180°. Each angle is called the supplement of the other. In the example at left, angles A and B are **supplementary**. Supplementary angles are often adjacent. For example, since ∠LMN is a straight angle, then ∠LMP and ∠PMN are supplementary angles because ∠LMP + ∠PMN = 180°.





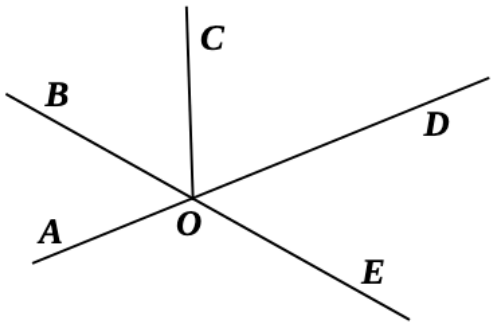
8 Find all pairs of supplementary angles on the drawing. Measure these angles with a protractor. Write down your results. Make sure supplementary angles add up to 180º.

∠AOB = 50º and ∠BOD=_____

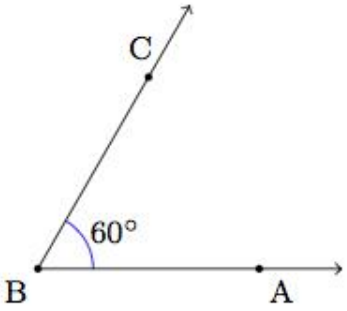
_____

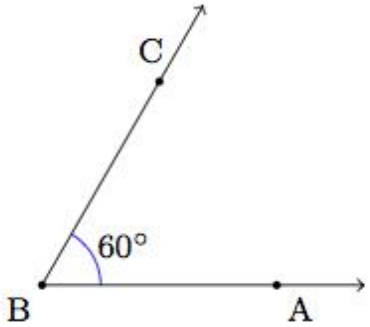
_____

_____



9 Look at the angle that drawn below and measures 60° degrees.





a) Draw another angle that measures 25 degrees. It should have the same vertex and share side $\overrightarrow{BC}$. How many angles are there in the figure you drew? What are their measures? _____

b) On the copy of your 60-degree angle draw a different angle that measures 45 degrees and has the same vertex and shares side $\overrightarrow{BC}$. How many angles are there in the figure you drew? What are their measures? _____

10 Compare, using <, > or =:

$32 - x$ _____ $32 - (x + 2)$ $32 + x$ _____ $32 + (x + 2)$

$26 - y$ _____ $26 - (y - 3)$ $26 + y$ _____ $26 + (y - 3)$

$b - a$ _____ $b - (a - n)$ $b + a$ ____ $b + (a + m)$

$b - c$_____ $b - (c - n)$ $b + c$ _____ $b + (c - n)$

11 Write down the numerical expression and calculate the value:

a) The length of a newborn baby whale was 5m 3dm 2cm. Once he grew up, he was 32m 6dm 7cm long! How much did he grow? _____

b) The seedling was 1dm and 5cm when it was planted. After two years, the plant was 2m 3dm and 8cm high. How much did the plant grow over two years? _____

REMINDER: PERIMETER OF A RECTANGLE:

Perimeter of a rectangle

To compute the perimeter of a rectangle you add the length, l and width, w and double this sum.

$P = (l + w) \times 2$

Perimeter of the square with a side *a*:

$P = a + a + a + a = 4a$

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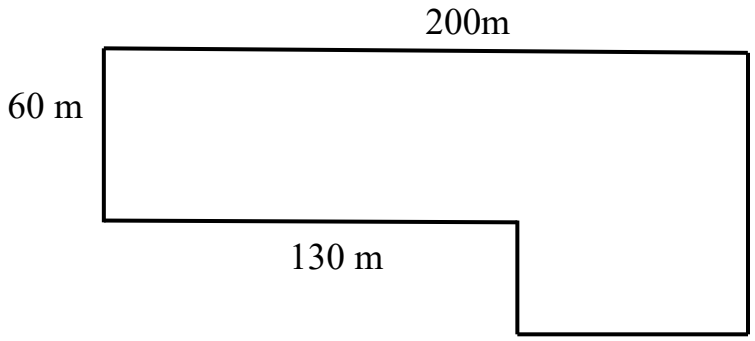
a) A rectangular swimming pool is 10 meters wide and 15 meters long. What is its perimeter?
P = _____

b) Brook has a rectangular garden of length 12 meters and width 6 meters
She wants to fence the garden with a rope. How much rope will be required?
P = _____

c) John goes for a morning walk every day. He walks along a path (see picture below) which has a total length of 600 meters. Find the length of the missing sides.



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There are two blackboards in the classroom. Both boards are 2m long. The height of the first board is 1m. The height of the 1st board is three dm more than the height of the 2nd board. Calculate the perimeters of each blackboard. How many dm more is the perimeter of the 1st board than the perimeter of the 2nd board?

P_1 = _____ _____

P_2 = _____ _____

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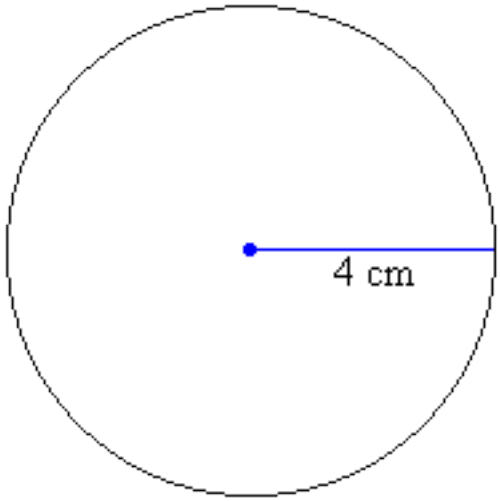
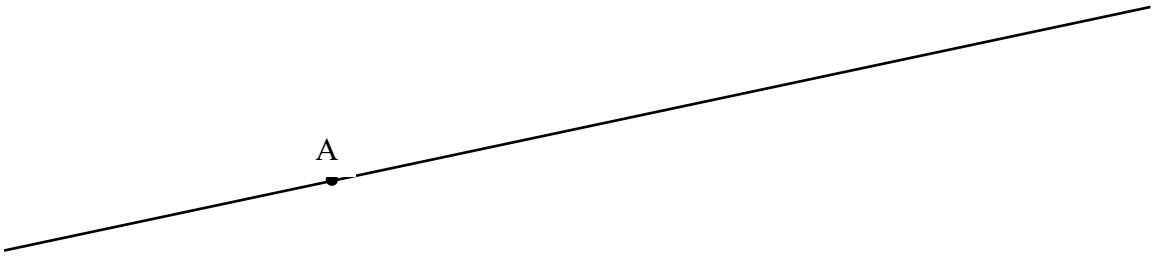
Look at the sketch below.
a) Using a compass, draw a circle with a radius of 4cm.
Reminder:
Step 1: Use a ruler to set the distance from the point of the compass to the pencil's lead at 4 cm.
Step 2: Place the point of the compass at the point A (point A will be the center of the circle).
Step 3: Draw the circle by turning the compass through 360º.



b) Now draw a circle with the center at point A with a radius of 4 cm. Mark the points where the circle intersects a line with a point B and a point C.



c) Using a compass, draw another circle with a radius of 4cm and the center in a point C.
d) Mark the points of intersection of two circles with points D and E.
e) Using a ruler, measure the distance between points D and E. What is the result of your measurement: _____ cm?

15 Calculate: (write in the vertical form):

a) 29 × 3 = b) 57 × 5 = c) 34 × 7 =

Multiplication Exercise.

Put the timer on for three (3) minutes and solve as many problems as you can.
Take a color pencil or pen and do the rest of the problems
(If you didn't finish it during the 3 minutes) ☺