

Math 3 Homework 13

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

$$9 \times 50 \underline{\hspace{1cm}} 90 \times 5$$

$$40 \times 3$$
 20×6

$$40 \times 3$$
 ___ 20×6 200×3 ___ 20×30

2

$$15 \times 8$$
 80×5

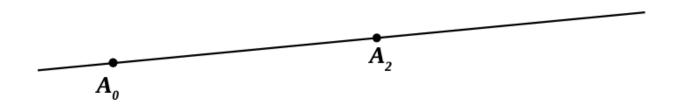
$$15 \times 8 \underline{\hspace{1cm}} 80 \times 5$$
 $50 \times 6 \underline{\hspace{1cm}} 30 \times 5$

Insert the sign "-" where needed to make the equality correct:

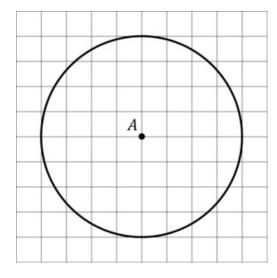
A bug is moving along a straight line. It started moving from the position A₀ and in 2 minutes went 3 into position A₂. Using a compass and a straightedge find ...

A. ... the position of the bug after the first minute (point A1).

B. ... the position of the bug after 3 minutes (point A3).



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

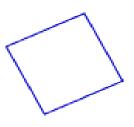


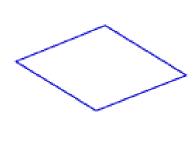
5

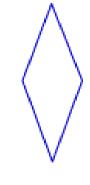
A few things around us that are circular in shape are a car tire, a wall clock that tells time, and a lollipop. Give at least two more example of the things with a circular shape around us.

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All of these figures have something in common. What is it?





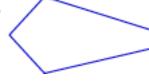


None of these has it. What is it?

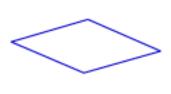




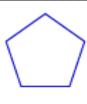




Which of these has it? What is it? __











Explain.

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Compare using <, > or =:

810 cm ____ 8 m

6m 57cm ____ 657cm

7 m _____ 75 cm

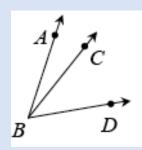
360 cm _____ 3m 60mm

1m _____ 100mm

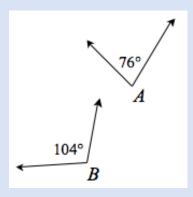
365mm ____ 36m 5mm

PLEASE READ THE DEFINITIONS OF ADJACENT AMDN SUPPLEMENTARY ANGLES

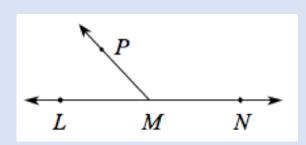
Adjacent angles: Two **angles** are **Adjacent** when they have a common side and a common vertex (corner point) and don't overlap. In the example at right, \angle ABC and \angle CBD are adjacent angles.



Supplementary angles: Two angles A and B for which $A + B = 180^{\circ}$. 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 \angle LMN is a straight angle, then \angle LMP and \angle PMN are supplementary angles because \angle LMP + \angle PMN = 180° .

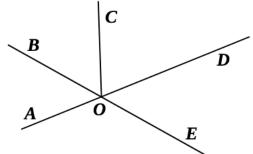


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Find all pairs of supplementary angles on the drawing. Measure these angles with a protractor. Write down your results. Make sure supplementary angles add up to 180°.

 $\angle AOB = 50^{\circ}$ and $\angle BOD = \underline{\hspace{1cm}}$



9

Compare, using <, > or =:

$$32 - x _{32} - (x + 2)$$

$$32 + x ___32 + (x + 2)$$

$$26 - y$$
_____2 $6 - (y - 3)$

$$26 + y ___26 + (y - 3)$$

$$b - a _{---} b - (a - n)$$

$$b + a _{--}b + (a + m)$$

$$b-c_{\underline{\hspace{1cm}}}b-(c-n)$$

$$b + c _{---} b + (c - n)$$

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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?

Use long multiplication to find answers to each of the following problems:

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 $123 \times 14 =$ $123 \times 45 =$ $123 \times 60 =$

12

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

$$P_1 = \underline{\hspace{1cm}}$$

$$P_2 = \underline{\hspace{1cm}}$$

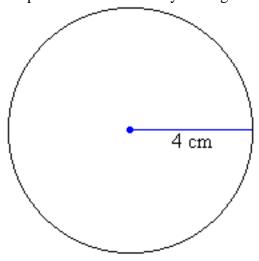
13

Look at the sketch below.

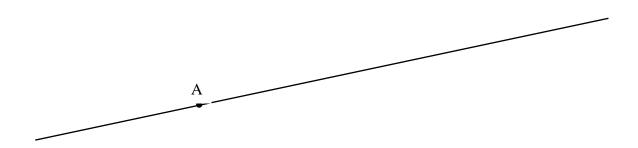
a) Using a compass, draw a circle with a radius of 4cm.

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 360°.



b) Mark the point where the circle intersects a line with a point B.



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