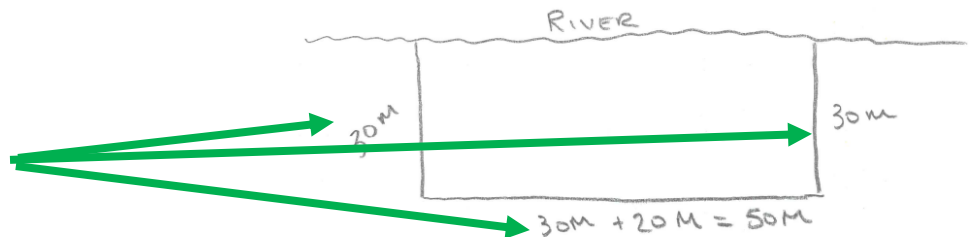


perimeter/circumference (the distance around stuff)

- the "theory" - what are important definitions, formulas, relationships (DON'T FORGET TO USE ENGLISH)
 - perimeter, P = add up the lengths of all the sides = total length around (needs length units with the answer)
 - can use this for any shape with straight edges
 - circumference, C = multiply the diameter times π (also needs length units)
 - only use this for circles
 - diameter is distance across the circle IF you go through the center
 - radius is distance from the center of the circle to the edge
 - diameter = 2 * radius
 - π (pi) is the number 3.1415 (but the decimals keep going forever)
- Identify the types of problems that will be solved using these ideas (DON'T FORGET TO USE ENGLISH)

Examples: (WRITE OUT BULLET POINT STEPS THAT DESCRIBE [IN ENGLISH] HOW TO SOLVE THE PROBLEMS [SIDE BY SIDE WITH THE EXAMPLE])

- find the amount of fence needed for a field that is 30 meters wide and is 20 meters longer than it is wide, where one of the long sides of the field is right next to the river, so we don't need a fence on that side
 - draw a picture of the shape



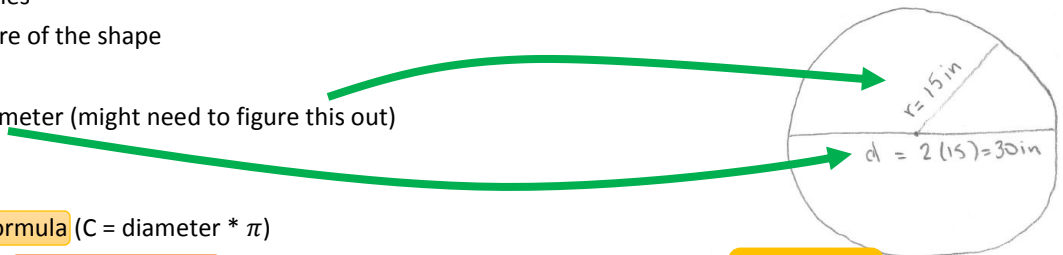
- label the length of each side
- write your formula (P = add up all the sides)
- figure out the numerical answer
- write the correct units for the answer
- explain your answer in "English"

$$P = w + l + w = 2w + l$$

$$= 2(30) + 50 = 110 \text{ meters}$$

We can fence a 30 m by 50 m rectangular field where the river acts as the other "long" side using 110 m of fence.

- find the amount of string needed to make a circle for shooting marbles if the distance from the center to the edge of the circle should be 15 inches
 - draw a picture of the shape



- label the diameter (might need to figure this out)
- write your formula (C = diameter * π)
- figure out the numerical answer (can I just use 3.14? how much precision will my answer need?)
- write the correct units for the answer
- explain your answer in "English"

$$C = \pi d$$

$$= 30\pi \text{ inches}$$

$$= 94.2477... \text{ inches}$$

if use π button

$$= 94.2 \text{ inches}$$

if use 3.14

We will need approximately 94.25 inches of string to make a marble shooting circle with a 15 inch radius.

- How can you recognize that the problem gets solved this way - what characteristics will the question have
 - Question will ask me to find the distance around something (either a shape with straight edges or a circle)
 - Question will tell me:
 - for perimeter, how long the straight edges are (or tell me enough information that I could figure out the lengths)
 - for circumference, how wide across the circle is (have to go through the center) – either diameter or the radius