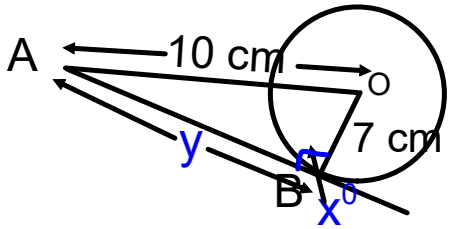
Warm up

Find the value of x and y.



AB = tangent
BO = radius
O = centre
B = Point of Tangency

$x = 90^\circ$

$a^2 = c^2 - b^2$

$y^2 = 10^2 - 7^2$

$= 100 - 49$

$= 51$

$y = \sqrt{51}$

$= 7.1\text{ cm}$

Problems with the homework?

MMS9:

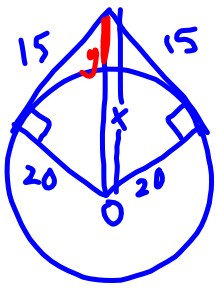
PAGE 388: #3, #5 & #6

PAGE 389: #7, #9, #11 & #12

PAGE 390: #13, #14, #17 & #18

PAGE 391: #19, #20 & #22

#17



$c^2 = a^2 + b^2$

$x^2 = 15^2 + 20^2$

$= 225 + 400$

$= 625$

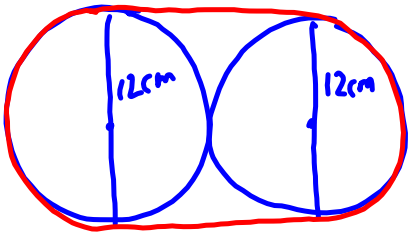
$x = \sqrt{625}$

$= 25\text{cm}$

$y = 25\text{cm} - 20\text{cm}$

$= 5\text{cm}$

19.



$C = \pi d$

Strap $= \pi d + 2d$

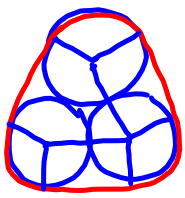
$= \pi(12) + 2(12)$

$= 12\pi + 24$

$= 61.7\text{ cm}$

Pg 391

22.



Corners

$C = 2\pi r$

$= 2\pi(0.5)$

$= \pi$

ADD Straight portion

length $= \pi + 3$

$= 6.14$

**Finish questions from last day...

MMS9:

PAGE 388: #3, #5 & #6

PAGE 389: #7, #9, #11 & #12

PAGE 390: #13, #14, #17 & #18

PAGE 391: #19, #20 & #22

**Then do Extra Practice 1

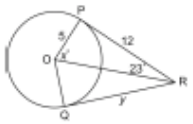
Master 8.17

Extra Practice 1

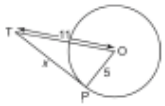
Lesson 8.1 Properties of Tangents to a Circle

1. Draw and label a diagram to illustrate the property of a tangent to a circle.

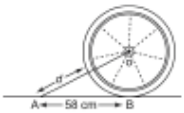
2. Point O is the centre of the circle.
Points P and Q are points of tangency.
Determine the values of $x°$ and y.
Justify your solutions.



3. Point O is the centre of the circle.
Point P is a point of tangency.
Determine the value of x to the nearest tenth.
Justify your solution.



4. A wheel has radius 30 cm. It rolls along the ground toward a tack that is 58 cm from the point where the wheel currently touches the ground. What is the distance, d, between the tack and the closest point on the circumference of the wheel? Give the answer to the nearest tenth of a centimetre.



5. A circular plate has radius 13 cm.
It is packed in a square cardboard frame whose 4 edges just touch the plate.
What is the distance, d, from the centre of the plate to a corner of the frame?
Give the answer to the nearest tenth of a centimetre.