Finals Review
DAY 2

Find m KY
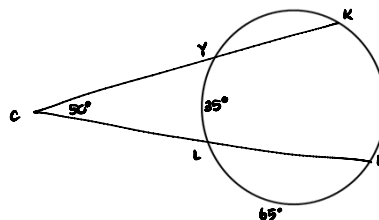
Find m KY
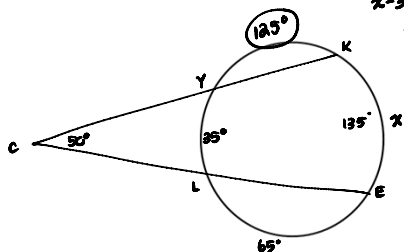
$$\frac{x-35}{2} = 50$$
$$x - 35 = 100$$
$$x = 135$$
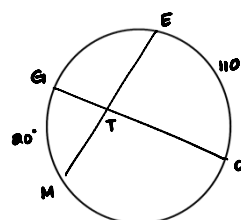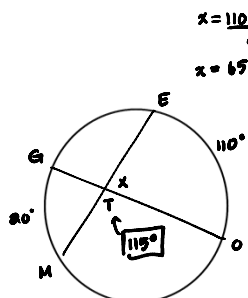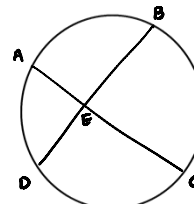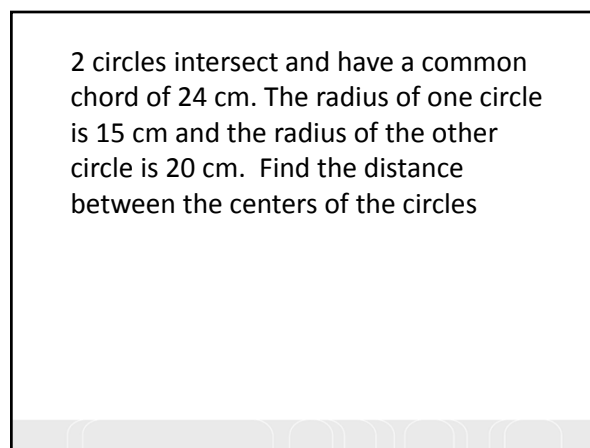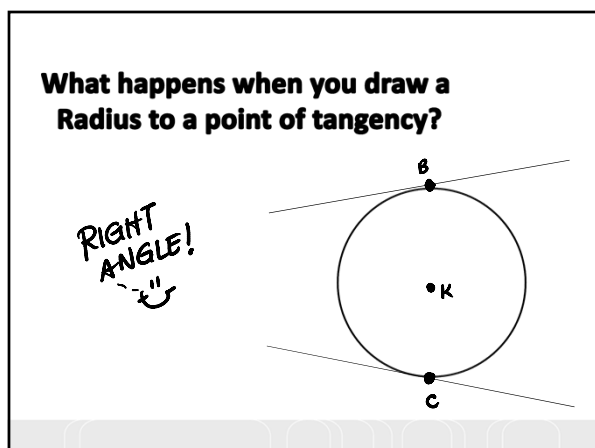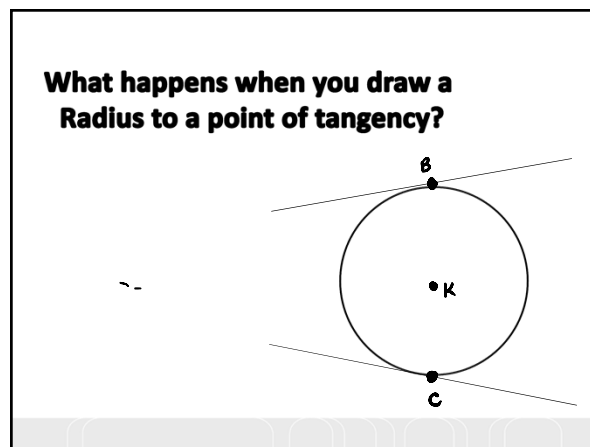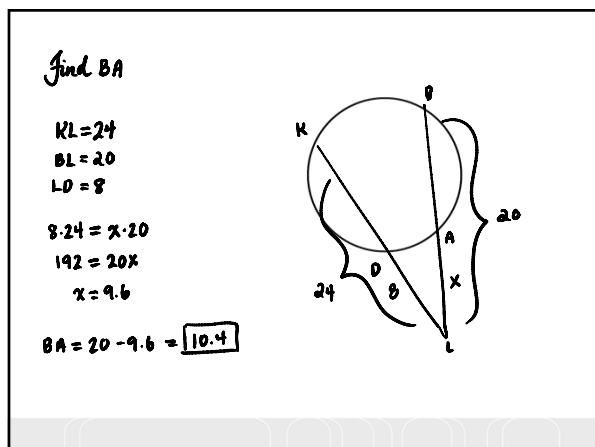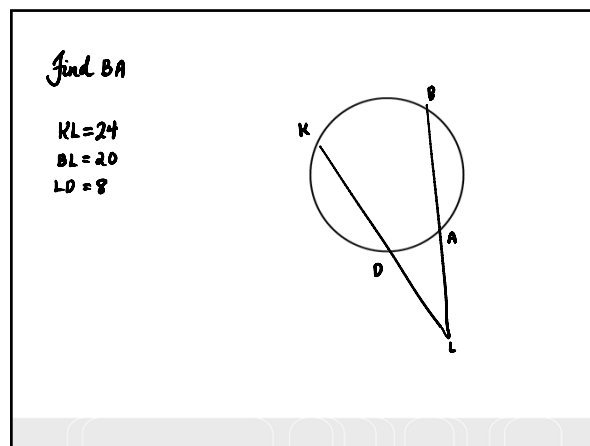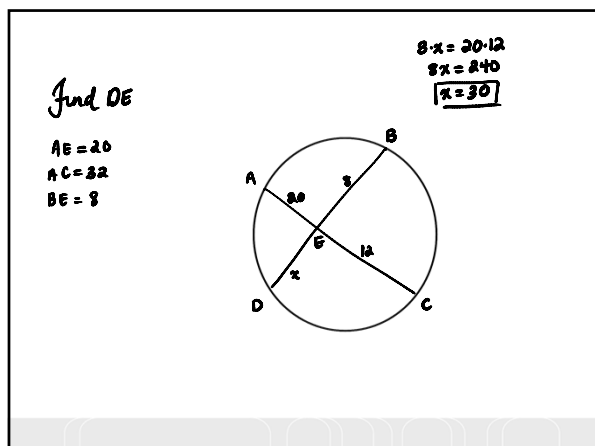
125°

50°   35°   135°   x

65°

Find m ∡ OTM

E   110°
G
20°
M   T   O

Find m ∡ OTM

$$x = \frac{110+20}{2}$$
$$x = 65$$

E   110°
G
20°   x
T   115°
M   O

Find DE

AE = 20
AC = 32
BE = 8

B
A
E
D   C

Find DE

AE = 20
AC = 32
BE = 8

$8 \cdot x = 20 \cdot 12$
$8x = 240$
$\boxed{x = 30}$

Find BA

KL = 24
BL = 20
LD = 8

Find BA

KL = 24
BL = 20
LD = 8

$8 \cdot 24 = x \cdot 20$
$192 = 20x$
$x = 9.6$

$BA = 20 - 9.6 = \boxed{10.4}$

What happens when you draw a Radius to a point of tangency?

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RIGHT ANGLE!

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2 circles intersect and have a common chord of 24 cm. The radius of one circle is 15 cm and the radius of the other circle is 20 cm. Find the distance between the centers of the circles
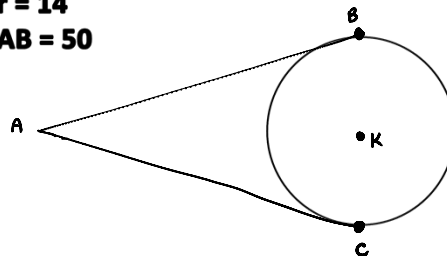
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25
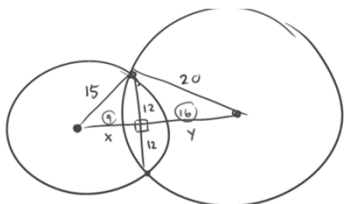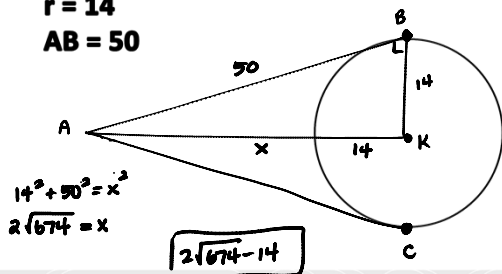

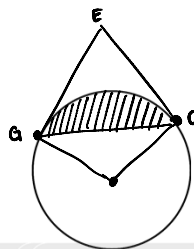
How far is A from the circle?
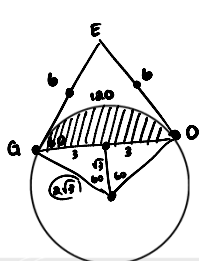
r = 14
AB = 50

How far is A from the circle?

r = 14
AB = 50

$14^2 + 50^2 = x^2$

$2\sqrt{674} = x$

$\boxed{2\sqrt{674} - 14}$

ΔGEO is equilateral
If the perimeter of the triangle is 18
find the area of the segment.

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find the area of the segment.

$\frac{x\sqrt{3}}{\sqrt{3}} = \frac{3}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$
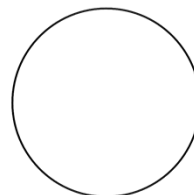
$x = \sqrt{3}$

$A_{\bigcirc} = \pi(2\sqrt{3})^2$
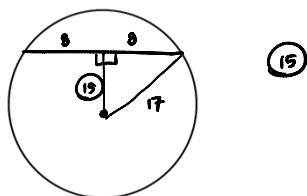
$= 12\pi$

$A_{sec} = \frac{1}{3} \cdot 12\pi = 4\pi$

$A_{\triangle} = \frac{6 \cdot \sqrt{3}}{2} = 3\sqrt{3}$
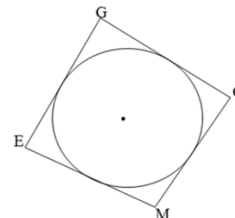
$A_{seg} = \boxed{4\pi - 3\sqrt{3}} \ u^2$

The given circle has a diameter of 34. A chord is 16 in long. How far is the chord from the center?
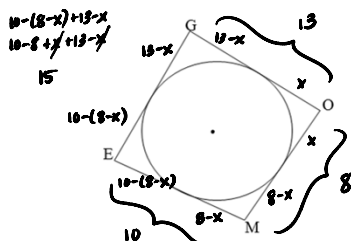
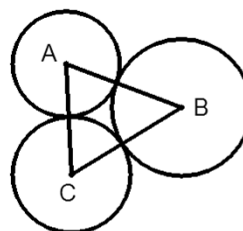**The given circle has a diameter of 34. A chord is 16 in long. How far is the chord from the center?**

If $\overline{GO}$, $\overline{OM}$, $\overline{ME}$, and $\overline{EG}$ are tangents of the circle, and GO = 13, OM = 8, and EM = 10, find EG.
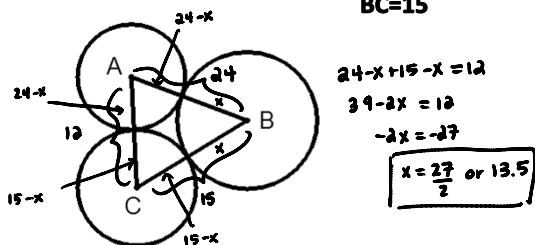

If $\overline{GO}$, $\overline{OM}$, $\overline{ME}$, and $\overline{EG}$ are tangents of the circle, and GO = 13, OM = 8, and EM = 10, find EG.

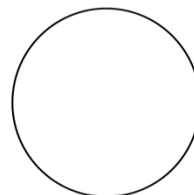**Find the Radius of Circle B:**   AB=24
AC=12
BC=15

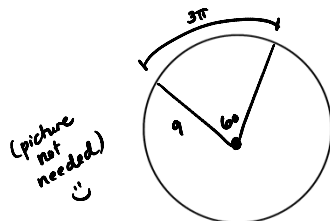---

Find the Radius of Circle B: AB=24
AC=12
BC=15

$24-x+15-x=12$

$39-2x=12$

$-2x=-27$

$x = \frac{27}{2}$ or 13.5

If a circle has an area of 81π. Find the length of a 60° arc.

If a circle has an area of 81π.
Find the length of a 60° arc.

3π

(picture
not
needed)
☺

9 $60°$

$A = \pi r^2$
$81\pi = \pi r^2$
$81 = r^2$
$9 = r$

$C = 18\pi$
$A.L = \frac{1}{6} \cdot 18\pi = 3\pi$

Find the Center and Area of
the circle given the equation:

$$x^2 + y^2 + 5x + 8y - 24 = 0$$

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$x^2 + 5x + \frac{25}{4} + y^2 + 8y + 16 = 24 + \frac{25}{4} + 16$

$\left(x + \frac{5}{2}\right)^2 + (y + 4)^2 = \frac{185}{4}$

$c: \left(\frac{-5}{2}, -4\right)$ $\boxed{A = \frac{185}{4}\pi}$