Nama : .....

Kelas/No: .....

LKPD ONLINE

GARIS SINGGUNG LINGKARAN

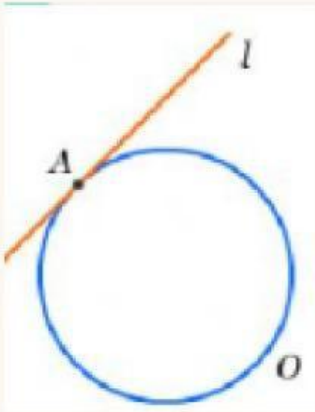
MATEMATIKA – FASE F

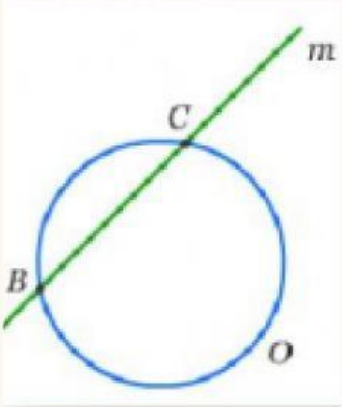
SMA NEGERI 3 KUTA SELATAN

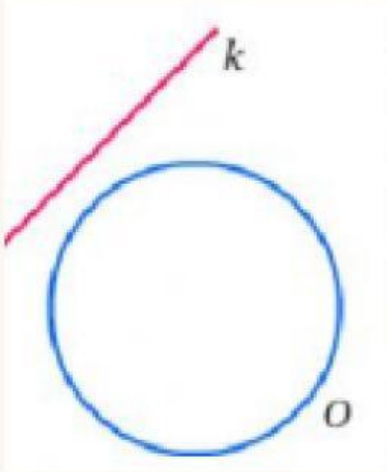
PUTU TITA INGGRIANI CINTYA DEWI, S.Pd., M.M.

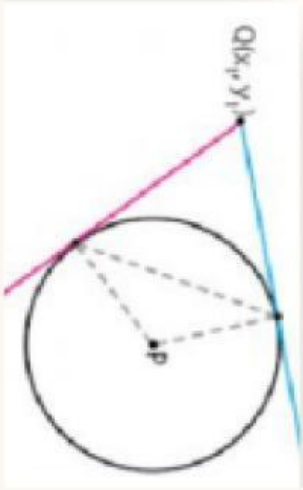
LIVEWORKSHEETS

Apakah gambar dibawah ini merupakan Garis Singgung Lingkaran?



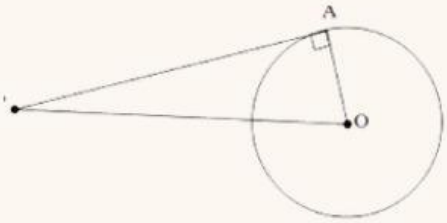






LIVEWORKSHEETS

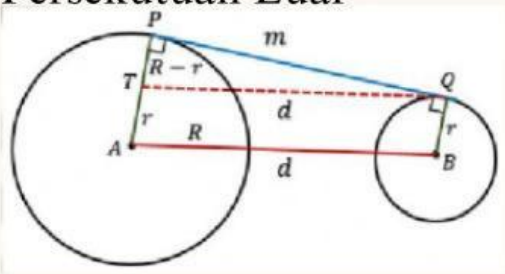
Garis Singgung Lingkaran



Rumus

Keterangan
PA : Garis Singgung
OP : Jarak Titik Pusat
OA : Jari - Jari Lingkaran

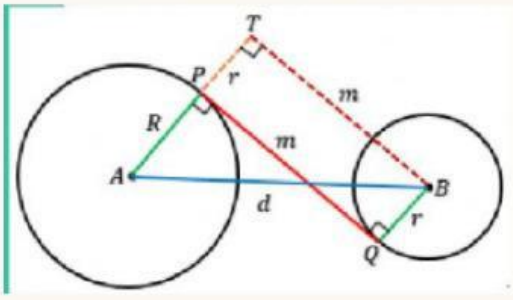
Garis Singgung Persekutuan Luar



Rumus

Keterangan
PQ : Garis Singgung
AB : Jarak Titik Pusat
R : Jari - Jari Lingkaran 1
r : Jari - Jari Lingkaran 2

Garis Singgung Persekutuan Dalam



Rumus

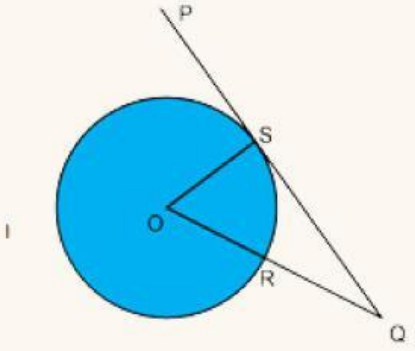
Keterangan
PQ : Garis Singgung
AB : Jarak Titik Pusat
R : Jari - Jari Lingkaran 1
r : Jari - Jari Lingkaran 2

$$PQ = \sqrt{AB^2 - (R + r)^2}$$

$$PQ = \sqrt{AB^2 - (R - r)^2}$$

$$PA = \sqrt{OP^2 - OA^2}$$

LIVEWORKSHEETS



Soal No. 1
PQ adalah garis singgung lingkaran O yang berjari-jari 5 cm.
Jika panjang garis OQ adalah 13 cm. Tentukan luas segitiga QOS!

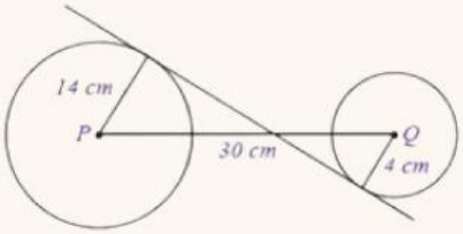
$QS = \sqrt{OQ^2 - OS^2}$

$QS = \sqrt{___^2 - ___^2}$

$QS = \sqrt{169 - ____}$

$QS = \sqrt{___}$

$QS = 12\ cm$



Soal No. 2
Tentukan Panjang Garis Singgung persekutuan dalam pada gambar disamping !

Diketahui
R = _____ cm
r = _____ cm
Jarap Titik Pusat Lingkaran = PQ = ____ cm

Ditanya :
Garis Singgung Dalam (GSD) Lingkaran = ____ ?

Jawab :

$GSD = \sqrt{PQ^2 - (R + r)^2}$

$GSD = \sqrt{___^2 - (__ + __)^2}$

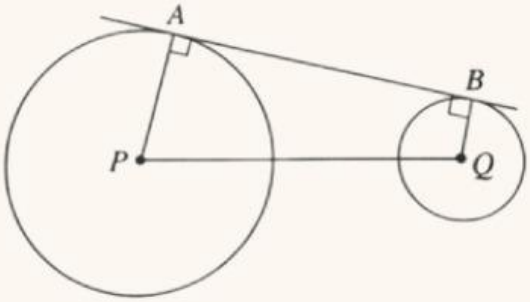
$GSD = \sqrt{___^2 - ___^2}$

$GSD = \sqrt{___ - ___}$

$GSD = \sqrt{___}$

$GSD = ___cm$

LIVEWORKSHEETS



Soal Nomor 3

Pada gambar di samping, panjang jari-jari PA = 11 cm, panjang jari-jari QB = 5 cm, dan jarak PQ = 10 cm. Hitunglah panjang garis singgung persekutuan luar AB!

Diketahui

R = _____ cm

r = _____ cm

Jarap Titik Pusat Lingkaran = PQ = ____ cm

Ditanya :

Garis Singgung Luar (GSL) Lingkaran = ____ ?

Jawab :

$$GSL = \sqrt{PQ^2 - (R - r)^2}$$

$$GSL = \sqrt{___^2 - (__ - __)^2}$$

$$GSL = \sqrt{___^2 - ___^2}$$

$$GSL = \sqrt{___ - ___}$$

$$GSL = \sqrt{___}$$

$$GSL = ___cm$$

LIVEWORKSHEETS