SUDUT RANGKAP

Nama : .....

Kelas : .....

No urut : .....

A. Rumus Sudut Rangkap

Petunjuk: $\boldsymbol{\sin x + \sin x = 2 \sin x}$

$\boldsymbol{\sin x \,.\, \sin x = \sin^2 x}$

Jawablah pertanyaan dengan cara mengisikan pilihan jawaban yang tepat

Pilihan jawaban soal nomor 1 sampai dengan 3

a. $cos^2A - \ sin^2A$	d. $\frac{2\tan A}{1-tan^2A}$
b. $2sin^2A\ cos^2A$	e. $\frac{\tan 2A}{1-tan^2A}$
c. 2 sin A cos A	

1. sin 2A = sin (A + A)

   = sin A cos A + cos A sin A

   = ...

2. cos 2A = cos (A + A)

   = cos A cos A – sin A sin A

   = ...

3. tan 2A = tan (A + A)

   = $\frac{\tan A+\tan A}{1-\tan A.\tan A}$

   = ...

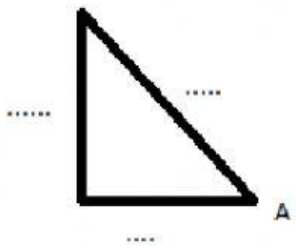
B. Latihan

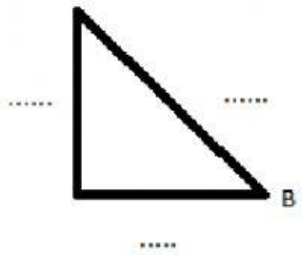
Gunakan pilihan jawaban di kotak untuk menjawab soal nomor 1 sampai dengan 3

a. $\frac{1}{2}\sqrt{3}$	f. 1	k. $-\frac{1}{4}\sqrt{2}+\sqrt{6}$	p. $\frac{5}{13}$
b. $\frac{1}{2}\sqrt{2}$	g. 2	l. $\frac{1}{4}(\sqrt{2}-\sqrt{6})$	q. $\frac{12}{13}$
c. $\sqrt{3}$	h. 5	m. $\frac{1}{4}(\sqrt{6}-\sqrt{2})$	r. $\frac{120}{169}$
d. $\sqrt{2}$	i. 12	n. $\frac{1}{4}(\sqrt{6}+\sqrt{2})$	s. $\frac{276}{169}$
e. $\sqrt{5}$	j. 13	o. $-\frac{1}{4}(\sqrt{6}+\sqrt{2})$	t. $\frac{1}{2}$

4. Diketahui $\tan A = \sqrt{3}$, $\sin B = \frac{1}{2}\sqrt{2}$. A dan B merupakan sudut lancip.

Lengkapilah data di bawah ini!





$\tan A = \sqrt{3}$

$\sin A = \cdots$

$\cos A = \cdots$

$\sin B = \frac{1}{2}\sqrt{2}$

$\cos B = \cdots$

$\tan B = \cdots$

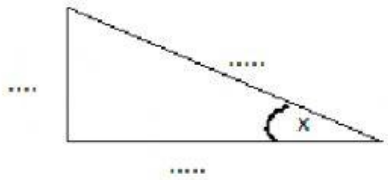
Cos (A+B) = cos A . cos B – sin A . sin B

= .....

$Sin\ (A-B) = \sin A \times \cos B - \cos A \times \sin B$

= .....

5. Diketahui $\tan x = \frac{5}{12}. 0 < x < \frac{\pi}{2}$



$\sin x = \cdots$

$\cos x = \cdots$

$\sin 2x = 2 \sin x . \cos x$

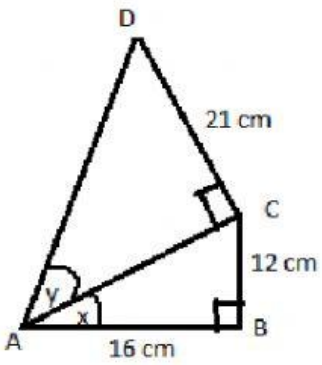
$= \cdots$

$\cos x + \sin 2x = \cdots$

Pilihan jawaban nomor 6 sampai dengan 10

a. $\sin 120°$	f. 20	k. $-\frac{1}{4}(\sqrt{2}+\sqrt{6})$	p. p
b. $\cos 100°$	g. 21	l. $\sqrt{15}$	q. $\sqrt{1-p^2}$
c. $\cos 60°$	h. 29	m. $-2+\sqrt{3}$	r. $\sqrt{1+p^2}$
d. $\frac{17}{145}$	i. 1	n. $\frac{1}{8}\sqrt{15}$	s. $2\sqrt{1-p^2}$
e. $-\frac{7}{8}$	j. 4	o. $-\frac{1}{7}\sqrt{15}$	t. $2p\sqrt{1-p^2}$

6.



AC = ...

AD = ...

$\cos(x+y) = \cdots$

7. $\cos 165° = \cdots$

   $\tan 165° = \ldots$

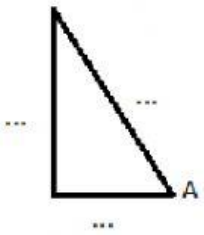
8. $\sin x = \sin 115° \cos 5° + \cos 115° \sin 5°$

   $\sin x = \cdots$

   $\cos x = \cos 80° \cos 20° + \sin 80° \sin 20°$

   $\cos x = \cdots$

9. Diketahui $\cos A = \frac{1}{4}$, dengan A sudut lancip.

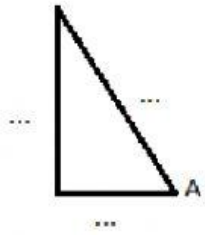


$\sin 2A = \cdots$

$\cos 2A = \cdots$

$\tan 2A = \cdots$

10. Diketahui $\sin A = p$. *Petunjuk: p mempunyai nilai yang sama dengan* $\frac{p}{1}$



$\sin 2A = \cdots$