1. diketahui cosα = 4/5 ; dimana cosα = x/r
   x = 4 r = 5 r = Vx^2+Vy^2
   r^2 = x^2 + y^2
   y^2 = r^2 – x^2
   = 25 – 16
   = 9
   Y = V9 = +- 3 karena sudut lancip berada di kuadran 1 maka nilai yang diambil adalah +3
   Sehingga sin a = y/r = 3/5
   *diketahui cos b = 24/25 ; dimana cos b = x/r
   Y^2 = r^2 – x^2
   = 625 – 576
   = 49
   Y = V49 = 7 (sudut lancip); sehingga sin b = y/r = 7/25
   Cos(a-b) dari rumus dijabarkan menjadi cos(a-b) = cos a cos b + sin a sin b
   Masukan nilai – nilai diatas:
   = 4/5 . 24/25 + 3/5 . 7/25
   = 96/125 + 21/125 = 117/125
2. gunakan aturan consinus
   c^2 = a^2 + b^2 – 2 ab cos C

   2ab cos C = a^2 + b^2 – c^2

   Cos C = a^2 + b^2 - c^2 / 2ab

   = 4^2 + 5^2 – 3^2 / 2.4.5 = 38/40 = 19/20

3. berada di kuadran kedua berarti x nya negative
   kuadran I x = + ; y= +
   kuadran II x = - ; y = +
   kuadran III x = - ; y = -
   kuadran IV x = + ; y= -

   cos A = 4/5 karena di kuadran kedua maka nilai cos A = -4/5
   cos A = -4/5 = x/r
   r^2 = x^2 + y^2
   y^2 = r^2 + x^2
   = 25 – 6
   = 9
   Y = 3 sehingga sin A = y/r = 3/5
   Sin 2A = 2 sin A cos A
   = 2 . 3/5 . -4/5 = -24/25
4. 1-cos 4x / 2 = ½ - cos 4x/2
   = ½ - cos(2x+2x)/2
   = ½ - cos 2x cos 2x – sin 2x sin 2x /2
   = ½ - cos^2 2x – sin^2 2x /2
   = ½ - (1-2sin^2 2x) /2
   = ½ - ½ + sin^2 2x

$= \sin^2 2x$

5. $(1-\cos a / \sin a)^2 = (V3/3)^2$
   $1-2\cos a + \cos^2 a / \sin^2 a = 1/3$
   $1-2\cos a + \cos^2 a / 1-\cos^2 a = 1/3$
   $1-2\cos a + \cos^2 a = 1/3\ (1-\cos^2 a)$
   $1-2\cos a + \cos^2 a = 1/3 - 1/3 \cos^2 a$
   2/3 - 2 cos a + 4/3 cos^2 a = 0
   4/3 cos^2 a – 2 cos a + 2/3 = 0 x3
   4 cos^2 a – 6 cos a + 2 = 0
   Pakai rumus ABC :
   6 +- V36-V32 /8
   Masukan kedalam persamaan:
   a = 0^o a = 60^o
   1-cos a / sin a = V3 / 3 = memenuhi
   Sehingga nilai a = 60^o
6. Sin 6x + sin 4x / cos 6x + cos 4x = 2 sin ½ (6x+4x) / 2 cos ½ (6x +4x) cos ½ (6x-4)
   = tan ½ 10x = tan 5x
7. Sin x + cos x = (sin x + cos x)^2 = 0^2
   = 1+sin2x = 0
   = sin 2x =-1
   Sehingga HP = {135^o , 315^o }
8. -1 < 3-2a / a-4 <= 1 ----------→ 3-2a / a-4 >= -1 n 3-2a / a-4 <= 1
   ----------→ -a-1 / a-4 >= 0 n 7-3a / a-4 >= 0
   Jadi banyak anggota himpunan penyelesaian yang merupakan bilangan bulat ada 4 buah
9. Cos 105 = cos 60 . cos 45 – sin 60 . sin 45
   Cos 105 = ¼ V2(1-V3)
10. Cos 75 = cos(30+45)
    Cos 75 = cos 30 . cos 45 – sin 30 . sin 45
    Cos 75 = ¼ V6 – ¼ V2
11. Jadi cos (a+b) = cos a . cos b – sin a . sin b
    = 3/15 x 5/13 – 4/5 x 12/13 = -33/65
12. Cos (63+87) = cos 150
    = cos (90+60) = -sin 60
13. Sin 105 = sin (60+45)
    = ½ V3 . ½ V2 + ½ . ½ V2
    = ¼ V2 (1+V3)
14. Sin 75 = sin (30+45)
    = ½ . ½ V2 + ½ V3 . ½ V2
    = 1/4 V6 + ¼ V2
15. Sin(a+b) = sin a. cos b + cos a. sin b = 4/15 x 5/13 + 3/5 x 12/13 = 20/65 + 36/65
    = 56/65
16. Sin 63 . cos 87 + cos 63 . sin 87 = sin(63+87) = sin (150) = ½
17. Cos 15 = cos(60-45)
    = ½ . ½ V2 + ½ V3 . ½ V2
    = ¼ V2 (1+V3)

18. Cos(-15) = cos 30 . cos 45 + sin 30 . sin 45
    = ½ V3 . ½ V2 + ½ . ½ V2
    = ¼ V6 + ¼ V2
19. Cos(a-b) = cos a . cos b + sin a . sin b = 3/15 . 5/13 + 4/5 . 12/13
    = 63/65
20. Cos 70 . cos 25 + sin 70 . sin 25 = cos (70 -25) = cos 45 = ½ V2