26. Berapakah hasil keluaran dari program di atas ?

var

i, j, total : integer;

begin

total := 0;

for i := 1 to 100 do

for j := 1 to 100 do

total := total + i - j;

writeln(total);

end.

Total:=0;

For i:=1 to 100;

For j:=1 to 100;

Total:= total+i-j;

Total= 0+1-1=0

Total= 0+2-2=0

Total= 0+3-3=0

Total= 0+4-4=0

Total= 0+5-5=0

.........................................

……………………………………..

Sampai Total = 0+100-100 = 0

Maka hasil dari looping tersebut adalah = 0

27. Berapakah nilai dari fungsi cimi(5,7)?

uses crt;

var

a : integer;

function cimi(x,y :integer):integer;

begin

if (x + y = 0) then begin

cimi := 0;

end

else if (x > y) then begin

cimi := y + cimi(x-1,y);

end

else

begin

cimi := x + cimi(x,y-1);

end;

end;

begin

a := cimi(5,7);

write(a);

readkey;

end.

a:=cimi(5,7);

x:=;5

y:=7;

1. else if(5>7) tidak

cimi:= x + cimi ( x,y-1)

cimi:= 5 + cimi ( 5,6)

2. else if(5>6) tidak

cimi:= x + cimi ( x,y-1)

cimi:= 5 + cimi ( 5,5)

3. else if (5>5) tidak

cimi:= x + cimi ( x,y-1)

cimi:=5 + cimi (5,4)

1. else if (5>4) ya

cimi:= y + cimi (x-1,y)

cimi:= 4 + cimi (4,4)

4. else if (4>4) tidak

cimi:= x + cimi ( x,y-1)

cimi:= 4 + cimi (4,3)

2. else if (4>3)ya

cimi:= y + cimi (x-1,y)

cimi:=3 + cimi(3,3)

5. else if (3>3) tidak

cimi:= x + cimi (x,y-1)

cimi:= 3 + cimi (3 ,2)

3. else if (3>2) ya

cimi:= y + cimi (x-1,y)

cimi:=2 + cimi(2,2)

6. else if (2>2) tidak

cimi:= x + cimi (x,y-1)

cimi:= 2 + cimi (2 ,1)

4. else if (2>1) ya

cimi:= y + cimi (x-1,y)

cimi:=1 + cimi(1,1)

7. else if (1>1) tidak

cimi:= x + cimi (x,y-1)

cimi:= 1 + cimi (1 ,0)

5. else if (1>0) ya

cimi:= y + cimi (x-1,y)

cimi:= 0 + cimi(0,0 )

Jadi dapat di simpulkan: Else if tidak = 7

Else if ya = 5

Maka 5 x 7 = 35

28. Berapakah nilai dari fungsi cimi(29,13)?

a:=cimi(29,13);

x:=29;

y:13;

1. else if (29>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(28,13)

uses crt;

var

a : integer;

function cimi(x,y :integer):integer;

begin

if (x + y = 0) then begin

cimi := 0;

end

else if (x > y) then begin

cimi := y + cimi(x-1,y);

end

else

begin

cimi := x + cimi(x,y-1);

end;

end;

begin

a := cimi(5,7);

write(a);

readkey;

end.

2. else if (28>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(27,13 )

3. else if (27>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(26,13)

4. else if (26>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(25,13 )

5. else if (25>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(24,13 )

6. else if (24>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(23,13 )

7. else if (23>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(22,13)

8. else if (22>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(21,13)

9. else if (21>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(20,13)

10. else if (20>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(19,13)

11. else if (19>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(18,13)

12. else if (18>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi(17,13)

13. else if (17>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi (16,13)

14. else if (16>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi (15,13)

15. else if (15>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi (14,13)

16. else if 1(4>13) ya

cimi:= y + cimi (x-1,y)

cimi:= 13 + cimi (13,13)

1. else if (13>13) tidak

cimi:= x + cimi (x,y-1)

cimi:= 13 + cimi (13,12)

17. else if (13>12) ya

cimi:= y + cimi (x-1,y)

cimi:= 12 + cimi (12,12)

2. else if (12>12) tidak

cimi:= x + cimi (x,y-1)

cimi:= 12 + cimi (12,11)

18. else if (12>11) ya

cimi:= y + cimi (x-1,y)

cimi:= 11 + cimi (11,11)

3. else if (11>11) tidak

cimi:= x + cimi (x,y-1)

cimi:= 11 + cimi (11,10)

19. else if (11>10) ya

cimi:= y + cimi (x-1,y)

cimi:= 10 + cimi (10,10)

4. else if (10>10) tidak

cimi:= x + cimi (x,y-1)

cimi:= 10 + cimi (10,9)

20. else if (10>9) ya

cimi:= y + cimi (x-1,y)

cimi:= 9 + cimi (9,9)

5. else if (9>9) tidak

cimi:= x + cimi (x,y-1)

cimi:= 9 + cimi (9,8)

21. else if (9>8) ya

cimi:= y + cimi (x-1,y)

cimi:= 8 + cimi (8,8)

6. else if (8>8) tidak

cimi:= x + cimi (x,y-1)

cimi:= 8 + cimi (8,7)

22. else if (8>7) ya

cimi:= y + cimi (x-1,y)

cimi:= 7 + cimi (7,7)

7. else if (7>7) tidak

cimi:= x + cimi (x,y-1)

cimi:= 7 + cimi (7,6)

23. else if (7>6) ya

cimi:= y + cimi (x-1,y)

cimi:= 6 + cimi (6,6)

8. else if (6>6) tidak

cimi:= x + cimi (x,y-1)

cimi:= 6 + cimi (6,5)

24. else if (6>5) ya

cimi:= y + cimi (x-1,y)

cimi:= 5 + cimi (5,5)

9. else if (5>5) tidak

cimi:= x + cimi (x,y-1)

cimi:= 5 + cimi (5,4)

25. else if (5>4) ya

cimi:= y + cimi (x-1,y)

cimi:= 4 + cimi (4,4)

10. else if (4>4) tidak

cimi:= x + cimi (x,y-1)

cimi:= 4 + cimi (4,3)

26. else if (4>3) ya

cimi:= y + cimi (x-1,y)

cimi:= 3 + cimi (3,3)

11. else if (3>3) tidak

cimi:= x + cimi (x,y-1)

cimi:= 3 + cimi (3,2)

27. else if (3>2) ya

cimi:= y + cimi (x-1,y)

cimi:= 2 + cimi (2,2)

12. else if (2>2) tidak

cimi:= x + cimi (x,y-1)

cimi:= 2 + cimi (2,1)

28. else if (2>1) ya

cimi:= y + cimi (x-1,y)

cimi:= 1 + cimi (1,1)

13. else if (1>1) tidak

cimi:= x + cimi (x,y-1)

cimi:= 1 + cimi (1,0)

29. else if (1>0) ya

cimi:= y + cimi (x-1,y)

cimi:= 0 + cimi (0,0)

Jadi dapat di simpulkan: Else if tidak = 13

Else if ya = 29

Maka 13 x 29 = 377

29. Berapakah nilai dari buttercup (3) ?

uses crt;

var

a : integer;

function blossom(x : integer) : integer;

var

ans,i : integer;

begin

ans := 0;

for i := 1 to x do

begin

ans := ans + i;

end;

blossom := ans;

end;

function bubble(x : integer) : integer;

var

ans,i : integer;

begin

ans := 0;

for i := 1 to x do begin

ans:= ans + blossom(i);

end;

bubble := ans;

end;

function buttercup(x : integer) : integer;

var

ans,i : integer;

begin

ans := 0;

for i := 1 to x do begin

ans := ans + bubble(i);

end;

buttercup := ans;

end ;

begin

a := buttercup(3);

write(a);

readkey;

end.

ans = 0

x = 3

1. function buttercup (1)

ans := 0;

for i := 1 to x do begin

ans := ans + bubble(i);

end;

buttercup := ans;

masuk ke function bubble (i)

ans := 0;

for i := 1 to 1 do begin

ans:= 0 + blossom(i);

end;

bubble := ans

masuk ke function blossom (1)

ans := 0;

for i := 1 to 1 do begin

ans := 0 + 1;

end;

blossom := 1

masuk ke function bubble (1)

ans := 0;

for i := 1 to 1 do begin

ans:= 0 + 1;

end;

bubble := 1

masuk ke function buttercup (1)

buttercup = 1

2. masuk ke function buttercup (2)

ans := 0;

for i := 1 to 2 do begin

ans:= 0 + 1;

end;

buttercup := 1

masuk ke function bubble (1)

ans := 0;

for i := 1 to 2 do begin

ans:= 0 + 1;

end;

bubble := ans

masuk ke function bubble (2)

ans := 0;

for i := 2 to 2 do begin

ans:= 1 + blossom(2);

end;

bubble := ans

masuk ke function blossom (1)

ans := 0;

for i := 1 to 1 do begin

ans:= 0 + 1;

end;

blossom := 1

masuk ke function blossom (2)

ans := 1;

for i := 2 to 2 do begin

ans:= 1 + 2;

end;

blossom := 3

masuk ke function bubble (2)

ans := 0;

for i := 1 to 2 do begin

ans:= 1 + 3;

end;

bubble := 4

masuk ke function buttercup (2)

ans := 1;

for i := 2 to 2 do begin

ans:= 1 + 4;

end;

buttercup := 5

3. masuk ke function buttercup (3)

ans := 0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

buttercup := 1

ans := 1;

for i := 2 to 3 do begin

ans:= 1 + 2;

end;

buttercup := 3

ans := 3;

for i := 3 to 3 do begin

ans:= 3 + bubble(3);

end;

buttercup := ans

masuk ke function bubble (3)

ans := 0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

bubble := 1

ans := 1;

for i := 2 to 3 do begin

ans:= 1 + 2;

end;

bubble := 3

ans := 3;

for i := 3 to 3 do begin

ans:= 3 + blossom(3);

end;

bubble := ans

masuk ke function blossom(3)

ans := 0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

blossom := 1

ans := 1;

for i := 2 to 3 do begin

ans:= 1 + 2;

end;

blossom := 3

ans := 3;

for i := 3 to 3 do begin

ans:= 3 + 3;

end;

blossom := 6

masuk ke function bubble(3)

ans := 0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

bubble := 1

ans := 1;

for i := 2 to 3 do begin

ans:= 1 + 3;

end;

bubble := 4

ans :=4;

for i := 3 to 3 do begin

ans:= 4 + 6;

end;

bubble := 10

masuk ke function buttercup (3)

ans :=0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

buttercup := 1

ans :=1;

for i := 2 to 3 do begin

ans:= 1 + 4;

end;

buttercup := 5

ans :=5;

for i := 3 to 3 do begin

ans:= 5 + 10;

end;

buttercup := 15

Maka hasil dari buttercup (3) adalah,

* Blossom (1) = 1

Bubble (1) = 1

Butter cup (1) = 1

* Blossom (2) = 1 + 2 = 3

Bubble(2 ) = 1 + 3 = 4

Buttercup (2) = 1 + 4 =5

* Blosssom (3) = 3 + 3 = 6

Bubble (3) = 4 + 6 = 10

Buttercup (3) = 5 + 10 =15

30. Berapakah nilai dari buttercup (6) ?

uses crt;

var

a : integer;

function blossom(x : integer) : integer;

var

ans,i : integer;

begin

ans := 0;

for i := 1 to x do

begin

ans := ans + i;

end;

blossom := ans;

end;

function bubble(x : integer) : integer;

var

ans,i : integer;

begin

ans := 0;

for i := 1 to x do begin

ans:= ans + blossom(i);

end;

bubble := ans;

end;

function buttercup(x : integer) : integer;

var

ans,i : integer;

begin

ans := 0;

for i := 1 to x do begin

ans := ans + bubble(i);

end;

buttercup := ans;

end ;

begin

a := buttercup(6);

write(a);

readkey;

end.

ans := 0;

for i := 1 to x do begin

ans := ans + bubble(i);

end;

buttercup := ans;

masuk ke function bubble (i)

ans := 0;

for i := 1 to 1 do begin

ans:= 0 + blossom(i);

end;

bubble := ans

masuk ke function blossom (1)

ans := 0;

for i := 1 to 1 do begin

ans := 0 + 1;

end;

blossom := 1

masuk ke function bubble (1)

ans := 0;

for i := 1 to 1 do begin

ans:= 0 + 1;

end;

bubble := 1

masuk ke function buttercup (1)

buttercup = 1

2. masuk ke function buttercup (2)

ans := 0;

for i := 1 to 2 do begin

ans:= 0 + 1;

end;

buttercup := 1

masuk ke function bubble (1)

ans := 0;

for i := 1 to 2 do begin

ans:= 0 + 1;

end;

bubble := ans

masuk ke function bubble (2)

ans := 0;

for i := 2 to 2 do begin

ans:= 1 + blossom(2);

end;

bubble := ans

masuk ke function blossom (1)

ans := 0;

for i := 1 to 1 do begin

ans:= 0 + 1;

end;

blossom := 1

masuk ke function blossom (2)

ans := 1;

for i := 2 to 2 do begin

ans:= 1 + 2;

end;

blossom := 3

masuk ke function bubble (2)

ans := 0;

for i := 1 to 2 do begin

ans:= 1 + 3;

end;

bubble := 4

masuk ke function buttercup (2)

ans := 1;

for i := 2 to 2 do begin

ans:= 1 + 4;

end;

buttercup := 5

3. masuk ke function buttercup (3)

ans := 0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

buttercup := 1

ans := 1;

for i := 2 to 3 do begin

ans:= 1 + 2;

end;

buttercup := 3

ans := 3;

for i := 3 to 3 do begin

ans:= 3 + bubble(3);

end;

buttercup := ans

masuk ke function bubble (3)

ans := 0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

bubble := 1

ans := 1;

for i := 2 to 3 do begin

ans:= 1 + 2;

end;

bubble := 3

ans := 3;

for i := 3 to 3 do begin

ans:= 3 + blossom(3);

end;

bubble := ans

masuk ke function blossom(3)

ans := 0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

blossom := 1

ans := 1;

for i := 2 to 3 do begin

ans:= 1 + 2;

end;

blossom := 3

ans := 3;

for i := 3 to 3 do begin

ans:= 3 + 3;

end;

blossom := 6

masuk ke function bubble(3)

ans := 0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

bubble := 1

ans := 1;

for i := 2 to 3 do begin

ans:= 1 + 3;

end;

bubble := 4

ans :=4;

for i := 3 to 3 do begin

ans:= 4 + 6;

end;

bubble := 10

masuk ke function buttercup (3)

ans :=0;

for i := 1 to 3 do begin

ans:= 0 + 1;

end;

buttercup := 1

ans :=1;

for i := 2 to 3 do begin

ans:= 1 + 4;

end;

buttercup := 5

ans :=5;

for i := 3 to 3 do begin

ans:= 5 + 10;

end;

buttercup := 15

function buttercup(4)

ans := 15

for i := 4 to 6 do

ans := 15 + bubble(4)

masuk ke function bubble(4)

ans := 10

for i := to 6 do

ans := 10 + blossom (4)

masuk ke function blossom(4)

ans := 6

for i := 4 + 6

ans := 6 + 4

blossom(4) = 10

masuk ke function bubble(4)

ans := 10

for i ;= 4 to 6 do

ans := 10 + 10

bubble(4) = 20

masuk ke function buttercup(4)

ans := 15

for i := 4 to 6

ans := 15 + 20

buttercup(4) = 35

function buttercup(5)

ans := 35

for i := 5 to 6 do

ans := 35 + bubble(5)

masuk ke function bubble(5)

ans := 10

for i := 5 to 6 do

ans := 10 + blossom (5)

masuk ke function blossom(5)

ans := 10

for i := 5 + 6

ans := 10 + 5

blossom(5) = 15

masuk ke function bubble(5)

ans := 20

for i ;= 5 to 6 do

ans := 20 + 15

bubble(5) = 35

masuk ke function buttercup(5)

ans := 35

for i := 5 to 6

ans := 35 + 35

buttercup(5) = 70

function buttercup(6)

ans := 70

for i := 6 to 6 do

ans := 70 + bubble(6)

masuk ke function bubble(6)

ans := 35

for i := 6 to 6 do

ans := 35 + blossom (6)

masuk ke function blossom(6)

ans := 15

for i := 6 + 6

ans := 15 + 6

blossom(6) = 21

masuk ke function bubble(6)

ans := 35

for i ;= 6 to 6 do

ans := 35 + 21

bubble(6) = 56

masuk ke function buttercup(6)

ans := 70

for i := 6 to 6

ans := 70 + 56

buttercup(6) = 126

31.Berapakah nilai dari kandang(2,6)?

uses crt;

var

a : integer;

function kandang(ayam, kambing:integer):integer;

var rumput, sapi: integer;

begin

rumput:=(kambing-ayam) div 3;

sapi:=rumput\*2;

if ayam > kambing then

kandang:= 0

else if (kambing-ayam < 3) then

kandang:= 2\*(kambing-ayam)

else kandang:= kandang(ayam,ayam+rumput)+

kandang(ayam+rumput,ayam+sapi)+

kandang(ayam+sapi,kambing);

end;

begin

a := kandang(2,6);

write(a);

readkey;

end.

a := kandang(2,6);

ayam = 2

kambing = 6

rumput = 1

sapi = 2

if (2>6) tidak

kandang(2,3)+kandang(3,4)+kandang(4,6)

else if (3-2 < 3)

kandang:= 2\*(3-2) = 2

else if (4-3< 3)

kandang:= 2\*(4-3) = 2

else if (6-4< 3)

kandang:= 2\*(6-4) = 4

Jadi nilai dari kandang(2,6) ?

adalah (2+2+ 4)= 8

32.Berapakah nilai dari kandang(2014,3021)?

uses crt;

var

a : integer;

function kandang(ayam, kambing:integer):integer;

var rumput, sapi: integer;

begin

rumput:=(kambing-ayam) div 3;

sapi:=rumput\*2;

if ayam > kambing then

kandang:= 0

else if (kambing-ayam < 3) then

kandang:= 2\*(kambing-ayam)

else kandang:= kandang(ayam,ayam+rumput)+

kandang(ayam+rumput,ayam+sapi)+

kandang(ayam+sapi,kambing);

end;

begin

a := kandang(2014,3021);

write(a);

readkey;

end.

Ayam = 2014

Kambing = 3021

Rumput = 335

Sapi = 670

if (2014>3021) tidak

kandang(2014,2349) + kandang (2349,2684)

+kandang (2684,3021)

else if (2349-2014 < 3)

kandang:= 2\*(2349-2014) = 670

else if (2684-2349 < 3)

kandang:= 2\*(2684-2349) = 670

else if (3021-2684 < 3)

kandang:= 2\*(3021-2684 ) = 674

Jadi nilai dari kandang(2014,3021) ?

adalah (670+670+674)=2014

33.Apakah keluaran dari program di atas?

var

i,j,x,baa:longint;

begin

x:=0;

baa:=10;

for i:= 1 to baa do begin

for j:= 1 to i do begin

if i mod 2=1 then

x:=x-j

else

x:=x+j;

end;

end;

writeln(x);

readln;

end.

X = 0

Baa = 10

For I = 1 to 10

For j = 1 to 10

If 1 mod 2=1

-1

If 2 mod 2=1

+ 1 +2

If 3 mod 2=1

-1 -2 -3

If 4 mod 2=1

+1 +2 +3 +4

If 5 mod 2=1

-1 -2 -3 -4 -5

If 6 mod 2=1

+1 +2 +3 +4 +5 +6

If 7 mod 2=1

-1 -2 -3 -4 -5 -6 -7

If 8 mod 2=1

+1 +2 +3 +4 +5 +6 +7 +8

If 9 mod 2=1

-1 -2 -3 -4 -5 -6 -7 -8 -9

If 10 mod 2=1

+1 +2 +3 +4 +5 +6 +7 +8 +9 +10

jadi dapat disimpulkan hasilnya adalah 2+4+6+8+10 = 30

34. Jika nilai baa pada awalnya diganti menjadi baa:=1000; maka keluaran program menjadi

uses crt;

var

i,j,x,baa:longint;

begin

x:=0;

baa:=1000;

for i:=1 to baa do begin

for j:= 1 to i do begin

if i mod 2=1 then

x:=x-j

else

x:=x+j;

end;

end;

writeln(x);

end.

x=0

Baa = 1000

For I = 1 to 1000

For j = 1 to 1000

If 1 mod 2=1

-1

If 2 mod 2=1

+ 1 +2

If 3 mod 2=1

-1 -2 -3

If 4 mod 2=1

+1 +2 +3 +4

If 5 mod 2=1

-1 -2 -3 -4 -5

If 6 mod 2=1

+1+2 +3 +4 +5 +6

If 7 mod 2=1

-1 -2 -3 -4 -5 -6 -7

If 8 mod 2=1

+1 +2 +3 +4 +5 +6 +7 +8

If 9 mod 2=1

-1 -2 -3 -4 -5 -6 -7 -8 -9

If 10 mod 2=1

+1 +2 +3 +4 +5 +6 +7 +8 +9 +10

…………………………………………………………………

…………………………………………………………………

Sampai If 1000 mod 2=1

+1 +2 +3 +4 +5 +6 +7 +8 +9 +10+ . . . +1000

Jadi dapat disimpulkan hasilnya adalah 2+4+6+8+10+ . . . +1000

= 250500

uses crt;

var x,n,lala,lili,i:integer;

begin

x:=7; n:=x;

lala:=10;

lili:=12345;

for i:=0 to lili do

begin

x:=(x\*n) mod lala;

end;

writeln(x);

readkey;

end.

35. Apakah output dari program tersebut ?

x = 7

n = 7

lala = 10

lili = 12345

1. x = (7\*7) mod 10

= 9

2. x = (9\*7) mod 10

= 3

3. x =(3\*7) mod 10

= 7

4. x =(7\*7) mod 10

= 9

5. x =(9\*7) mod 10

=3

Jadi , i akan mengulang sebanyak lili = 12345 kali, dan akan menghasilkan output 3.

36. Apakah output yang akan di hasilkan

uses crt;

var x,n,lala,lili,i:integer;

begin

x:=9; n:=x;

lala:=100;

lili:=12345;

for i:=0 to lili do

begin

x:=(x\*n) mod lala;

end;

writeln(x);

readkey;

end.

x = 9

n = 9

lala = 100

lili = 12345

1. x = (9\*9) mod 100

= 81

2 x = (81\*9) mod 100

= 29

3. x = (29\*9) mod 100

= 61

4. x = (61\*9) mod 100

= 49

5. x = (49\*9) mod 100

= 41

6. x = (41\*9) mod 100

= 69

i mengulang sebanyak lili = 12345, dan akan menghasilkan output, 69

37. Apakah output dari program di samping ?

uses crt;

var x:integer;

function lala(lili:integer):integer;

var abc,i:integer;

begin

abc:=0;

if (lili mod 5 = 0) then

begin

for i:=1 to 7 do abc:=abc+lala(lili div 5);

end else if (lili mod 3 = 0) then

begin

for i:=1 to 5 do abc:=abc+lala(lili div 3);

end else if (lili mod 2 = 0) then

begin

abc:=lala(lili div 2)+lala(lili div 2);

end;

if (lili=1) then lala:=1 else

lala:=abc;

end;

begin

x:=25;

writeln(lala(x));

readkey;

end.

Begin

X:= 25;

Writeln(lala(x));

end;

begin

abc := 0;

if (25 mod 5 = 0) then

begin

for i := 1 to 7 do

abc := abc + lala (5 div 5 );

masuk ke function lala(5)

begin

abc := 0;

if ( 5 mod 5 =) then

begin

for i := 1 to 7 do

abc := abc + lala (5 div 5) lala(1)

masuk ke function lala(1)

begin

abc := 0;

if ( 1 mod 5 = 0) then

begin

for i := 1 to 7 do

else if ( 1 mod 3 = 0) then

begin

for i := 1 to 5 do

else if ( 1 mod 2 = 0) then

Karena nilai lala sudah di ketahui , sekarang tinggal masukan nilainya :

begin

abc := 0;

for i := 1 to 7 do

abc := abc + lala(1)

abc := 0 + 1 = 1

for i := 2 to 7 do

abc := abc + lala(1)

abc := 1 + 1 = 2

for i := 3 to 7 do

abc := abc + lala(1)

abc := 2 + 1 = 3

for i := 4 to 7 do

abc := abc + lala(1)

abc := 3 + 1 = 4

for i := 5 to 7 do

abc := abc + lala(1)

abc := 4 + 1 = 5

for i := 6 to 7 do

abc := abc + lala(1)

abc := 5 + 1 = 6

for i := 7 to 7 do

abc := abc + lala(1)

abc := 6 + 1 = 7

jadi lala 5 = 7

for i := 1 to 7 do

abc := abc + lala (5)

abc := 0 + 7 = 7

for i := 2 to 7 do

abc := abc + lala (5)

abc := 7 + 7 = 14

for i := 3 to 7 do

abc := abc + lala (5)

abc := 14 + 7 = 21

for i := 4 to 7 do

abc := abc + lala (5)

abc := 21 + 7 = 28

for i := 5 to 7 do

abc := abc + lala (5)

abc := 28 + 7 = 35

for i := 6 to 7 do

abc := abc + lala (5)

abc := 35 + 7 = 42

for i := 7 to 7 do

abc := abc + lala (5)

abc := 42 + 7 = 49

masuk ke

if (lili =1 ) then lala := 1 (false)

else (true)

lala := abc

lala := 49

Jadi nilai dari lala(25) = 49

38. Apabila x bernilai 35 apa output yang akan di hasilkan ?

uses crt;

var x:integer;

function lala(lili:integer):integer;

var abc,i:integer;

begin

abc:=0;

if (lili mod 5 = 0) then

begin

for i:=1 to 7 do abc:=abc+lala(lili div 5);

end else if (lili mod 3 = 0) then

begin

for i:=1 to 5 do abc:=abc+lala(lili div 3);

end else if (lili mod 2 = 0) then

begin

abc:=lala(lili div 2)+lala(lili div 2);

end;

if (lili=1) then lala:=1 else

lala:=abc;

end;

begin

x:=35;

writeln(lala(x));

readkey;

end.

function lala(35)

begin

x := 35;

writeln(lala(x))

end.

begin

abc := 0

if (35 mod 5 = 0) then

begin

for i := 1 to 7 do

abc := abc + lala (7 div 5);

masuk ke function lala(7)

begin

abc := 0;

if (7 mod 5 = 0) then (false)

begin

for i := 1 to 5 do

abc := abc + lala(lili div 3);

end else if (lili mod 2 = 0) then (false)

begin

abc := lala(lili div 2) + lala(lili div 2); (false)

end;

if (lili=1) then lala:= 1 (false)

else

lala := abc (true)

lala := 0;

program di atas akan mengulang sebanyak 7x dan akan menghasilkan nilai 0

lalu kembali function lala(35) dan melakukan penjumlahan 0 sebanyak 7 kali

for i := 1 to 7 di

abc := abc + lala(7)

abc := 0 + 0 = 0

for i := 2 to 7 di

abc := abc + lala(7)

abc := 0 + 0 = 0

for i := 3 to 7 di

abc := abc + lala(7)

abc := 0 + 0 = 0

for i := 4 to 7 di

abc := abc + lala(7)

abc := 0 + 0 = 0

for i := 5 to 7 di

abc := abc + lala(7)

abc := 0 + 0 = 0

for i := 6 to 7 di

abc := abc + lala(7)

abc := 0 + 0 = 0

for i := 7 to 7 di

abc := abc + lala(7)

abc := 0 + 0 = 0

maka nilai dari lala(35) = 0

39. Apakah output atyang akan di hasilkan ?

uses crt;

var

aku,sayang,kamu:integer;

begin

aku:=1;

sayang:=0;

kamu:=1;

while (sayang<=100) do

begin

aku:=aku+kamu;

inc(sayang);

inc(kamu); inc(kamu);

end;

writeln(aku);

readkey;

end.

1. (0<= 100) true

aku:=(1+1) = 2

incsayang (1) =1

inckamu(2) =2

inckamu(3)= 3

1. (1 <= 100) true

aku:=+(2+3) = 5

inc sayang(2) = 2

inckamu(4) = 4

inckamu(5)= 5

1. (2 <= 100) true

aku:=+(5+5) = 10

incsayang(3) = 3

inckamu(6) = 6

inckamu(7) =7

4. (3 <= 100) true

aku:=+(10+7) = 17

incsayang(3) = 4

inckamu(8) = 8

inckamu(9) =9

5. (4 <= 100) true

aku:=+(17+9) = 26

Incsayang(4+1)=5

Inckamu(9+1)=10

Inckamu(10+1)=11

6. (5 <= 100) true

aku:=+(11+26) = 37

Incsayang(5+1)=6

Inckamu(11+1)=12

Inckamu(12+1)=13

7. (6 <= 100) true

aku:=+(37+13) = 50

Incsayang(5+1)=6

Inckamu(13+1)=14

Inckamu(14+1)=15

8. (7 <= 100) true

aku:=+(50+15) = 65

Incsayang(6+1)=7

Inckamu(15+1)=16

Inckamu(16+1)=17

9. (8<= 100) true

aku:=(65+17) = 82

Incsayang(7+1)=8

Inckamu(17+1)=18

Inckamu(18+1)=19

10. (9 <= 100) true

Aku:=(82+19) = 101

Incsayang(8+1)=9

Inckamu(19+1)=20

Inckamu(20+1)=21

Sayang akan mengulang sebanyak 101 kali, dan akan menghasilkan output = 10202

10202 akan di dapat dari hasil aku + kamu selama pengulangan tersebut.

40. Apabila masing–masing digit di jumlah kan, maka apa output yang akan di hasilkan ?

begin

uses crt;

var i,j:integer;

lala:boolean;

begin

for i:=2 to 100 do

begin

lala:=true;

j:=2;

while (j\*j<=i) do

begin

if (i mod j = 0) then lala:=false;

inc(j);

end;

if (lala=true) then write(i);

readkey;

end;

end.

for i := 2 to 100 do

begin

lala = true;

j := 2

while (2 \* 2 <= 2) do (false)

i := 2

for i := 3 to 100 do

while (2 \* 2 <= 3) do (false)

i := 3

for i := 4 to 100 do

while (2 \* 2 <= 4) do (true)

begin

if (4 mod 2 = 0) then lala := false

inc(2) = 3

begin

for i := 5 to 100 do

begin

lala = true;

j := 3

while (3 \* 3 <= 5) do (false)

for i := 6 to 100 do

while (3 \* 3 <= 6) do (true)

begin

if ( 6 mod 3 = 0) then lala := false;

inc (3) = 4

for i akan bertambah jika lala = true

program ini akan terus mengulang sebanyak 99 kali dan akan menghasilkan output 1060

1060 di dapat dari hasil for i yang (false)

41. Berapakah hasil yang di kembalikan fungsi tersebut pada pemanggilan iseng (500,100) ?

if (100 <= 0) false

uses crt;

var

a : integer;

function iseng(x, y:integer):integer;

begin

if (y <= 0) then

iseng := x

else if (y mod 2 = 0) then

iseng := iseng(x-y, y-1)

else

iseng := iseng(x+2\* y, y-1);

end;

begin

a := iseng(500,100);

write(a);

readkey;

end.

else if (100 mod 2 = 0) then true

iseng := iseng(500-100, 100-1)

masuk ke function iseng (400,99)

if (99 <= 0) false

else if ( 99 mod 2 = 0) false

else iseng:= iseng(400+2\*99, 99-1)

masuk ke function iseng (598,98)

if (98 <= 0) then true

iseng := iseng(598-98, 98-1)

masuk ke function iseng (500,97)

if (97 <= 0) false

else if (97 mod 2 = 0) false

else iseng := iseng (500+2\*97, 97-1)

masuk ke function (694,96)

if (96 <= 0) false

else if (96 mod 2 = 0) true

iseng := iseng(694-96, 96-1)

masuk ke function iseng (598,95)

if (95 <= 0) false

else if ( 95 mod 2 = 0) false

else iseng:= iseng(598+2\*95, 95-1)

masuk ke function iseng (788,95)

if (94 <= 0) false

else if (94 mod 2 = 0) true

iseng := iseng(788-94, 94-1)

masuk ke function iseng (694,93)

if (93 <= 0) false

else if ( 93 mod 2 = 0) false

else iseng:= iseng(694+2\*93, 93-1)

masuk ke function iseng (880,92)

if (92 <= 0) false

else if (92 mod 2 = 0) true

iseng := iseng(880-92, 92-1)

masuk ke function iseng (788,91)

if (91 <= 0) false

else if ( 91 mod 2 = 0) false

else iseng:= iseng(788+2\*91, 91-1)

masuk ke function iseng (970,90)

if (90 <= 0) false

else if (90 mod 2 = 0) true

iseng := iseng(970-90, 90-1)

program tersebut akan mengulang sampai ( x <= 0 ) dan akan menghasilkan output 2950

uses crt;

var

a,x,count,i,n : integer;

begin

n := 10 ;

count := 0;

for i := 1 to n do

begin

x := i;

while (x > 0) do

begin

if (x mod 10 = 1) then

inc(count);

x := x div 10;

end;

end;

writeln(count);

readkey;

end.

42. Apakah output yang akan dihasilkan apabila n = 12 ?

n = 12

count = 0

x = 1 to 12

while (1 > 0) do

if (1 mod 10 = 1) then inc(count)= 2

x := 1 div 10 = -

while (2 > 0) do

if (2 mod 10 = 2) then inc(count)

x := 2 div 10 = 0

while (3 > 0) do

if (3 mod 10 = 3) then inc(count)

x := 3 div 10 = 0

while (4 > 0) do

if (4 mod 10 = 4) then inc(count)

x := 4 div 10 = 0

while (5 > 0) do

if (5 mod 10 = 5) then inc(count)

x := 5 div 10 = 0

while (6 > 0) do

if (6 mod 10 = 6) then inc(count)

x := 6 div 10 = 0

while (7 > 0) do

if (7 mod 10 = 7) then inc(count)

x := 7 div 10 = 0

while (8 > 0) do

if (8 mod 10 = 3) then inc(count)

x := 8 div 10 = 0

while (9 > 0) do

if (9 mod 10 = 3) then inc(count)

x := 9 div 10 = 0

while (10 > 0) do

if (10 mod 10 = 0) then inc(count) = 1

x := 10 div 10 = -

while (11 > 0) do

if (11 mod 10 = 1) then inc(count)= 2

x := 1 div 10 = -

while (12 > 0) do

if (12 mod 10 = 2) then inc(count)

x := 2 div 10 = 0

JADI OUTPUT DARI PROGRAM N = 12 ADALAH 5

43. Apakah output yang akan di hasilkan apabila n = 10000

uses crt;

var

a,x,count,i,n : integer;

begin

n := 10000 ;

count := 0;

for i := 1 to n do

begin

x := i;

while (x > 0) do

begin

if (x mod 10 = 1) then

inc(count);

x := x div 10;

end;

end;

writeln(count);

readkey;

end.

n = 10000

count = 0

x = 1 to 12

while (1 > 0) do

if (1 mod 10 = 1) then inc(count)= 2

x := 1 div 10 = -

while (2 > 0) do

if (2 mod 10 = 2) then inc(count)

x := 2 div 10 = 0

while (3 > 0) do

if (3 mod 10 = 3) then inc(count)

x := 3 div 10 = 0

while (4 > 0) do

if (4 mod 10 = 4) then inc(count)

x := 4 div 10 = 0

while (5 > 0) do

if (5 mod 10 = 5) then inc(count)

x := 5 div 10 = 0

while (6 > 0) do

if (6 mod 10 = 6) then inc(count)

x := 6 div 10 = 0

while (7 > 0) do

if (7 mod 10 = 7) then inc(count)

x := 7 div 10 = 0

while (8 > 0) do

if (8 mod 10 = 3) then inc(count)

x := 8 div 10 = 0

while (9 > 0) do

if (9 mod 10 = 3) then inc(count)

x := 9 div 10 = 0

while (10 > 0) do

if (10 mod 10 = 0) then inc(count) = 1

x := 10 div 10 = -

while (11 > 0) do

if (11 mod 10 = 1) then inc(count)= 2

x := 1 div 10 = -

while (12 > 0) do

if (12 mod 10 = 2) then inc(count)

x := 2 div 10 = 0

x akan mengulang sebanyak n yaitu 10000 kali, dan akan menghasilkan output, 4001

Jadi output dari program di atas adalah = 4001

44. Jika program utama terdapat statement untuk mencetak hasil dari

uses crt;

var

a : integer ;

function gembel(x,y : integer) : integer;

begin

if y=0 then gembel := x

else gembel := gembel(y,x mod y);

end;

function wedhus(n : integer) : integer;

var i,pedhet : integer;

begin

pedhet := 0;

for i:= n-1 downto 1 do

begin

if gembel(n,i)=1 then pedhet := pedhet+1;

end;

wedhus := pedhet;

end;

begin

a := wedhus(30);

write(a);

readkey;

end.

Wedhus(30), maka output yang akan dihasilkan adalah ?

1. for i:= 29 downto 1 do

if gembel(30,29)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(29,1);

else gembel := gembel(29,1);

else gembel := gembel(1,0);

if y =0 then gembel := x

if 0 =0 then gembel := 1

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 1 = 1 then pedhet := 2

2. for i:= 28 downto 1 do

if gembel(30,28)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(28,2);

else gembel := gembel(28,2);

else gembel := gembel(2,0);

if y =0 then gembel := x

if 0 =0 then gembel := 2

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 2 = 1 then pedhet :=

3. for i:= 27 downto 1 do

if gembel(30,27)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(27,3);

else gembel := gembel(27,3);

else gembel := gembel(3,0);

if y =0 then gembel := x

if 0 =0 then gembel := 3

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 3 = 1 then pedhet :=

4. for i:= 26 downto 1 do

if gembel(30,26)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(26,4);

else gembel := gembel(26,4);

else gembel := gembel(4,2);

else gembel := gembel(4,2);

else gembel := gembel(2,0);

if y =0 then gembel := x

if 0 =0 then gembel := 2

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 2 = 1 then pedhet :=

5. for i:= 25 downto 1 do

if gembel(30,25)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(25,5);

else gembel := gembel(25,5);

else gembel := gembel(5,0);

if y =0 then gembel := x

if 0 =0 then gembel := 5

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 5 = 1 then pedhet :=

6. for i:= 24 downto 1 do

if gembel(30,24)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(24,6);

else gembel := gembel(24,6);

else gembel := gembel(6,0);

if y =0 then gembel := x

if 0 =0 then gembel := 6

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 6 = 1 then pedhet :=

7. for i:= 23 downto 1 do

if gembel(30,23)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(23,7);

else gembel := gembel(23,7);

else gembel := gembel(7,2);

else gembel := gembel(7,2);

else gembel := gembel(2,1);

else gembel := gembel(2,1);

else gembel := gembel(1,0);

if y =0 then gembel := x

if 0 =0 then gembel := 1

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 1 = 1 then pedhet := 2

8. for i:= 22 downto 1 do

if gembel(30,22)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(22,8);

else gembel := gembel(22,8);

else gembel := gembel(8,6);

else gembel := gembel(8,6);

else gembel := gembel(6,2);

else gembel := gembel(6,2);

else gembel := gembel(2,0);

if y =0 then gembel := x

if 0 =0 then gembel := 2

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 2 = 1 then pedhet :=

9. for i:= 21 downto 1 do

if gembel(30,21)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(21,9);

else gembel := gembel(21,9);

else gembel := gembel(9,3);

else gembel := gembel(9,3);

else gembel := gembel(3,0);

if y =0 then gembel := x

if 0 =0 then gembel := 3

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 3 = 1 then pedhet :=

10. for i:= 20 downto 1 do

if gembel(30,20)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(20,10);

else gembel := gembel(20,10);

else gembel := gembel(10,0);

if y =0 then gembel := x

if 0 =0 then gembel := 10

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 10 = 1 then pedhet :=

11. for i:= 19 downto 1 do

if gembel(30,19)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(19,11);

else gembel := gembel(19,11);

else gembel := gembel(11,8);

else gembel := gembel(11,8);

else gembel := gembel(8,3);

else gembel := gembel(8,3);

else gembel := gembel(3,2);

else gembel := gembel(3,2);

else gembel := gembel(2,1);

else gembel := gembel(2,1);

else gembel := gembel(1,0);

if y =0 then gembel := x

if 0 =0 then gembel := 1

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 1 = 1 then pedhet := 2

12. for i:= 18 downto 1 do

if gembel(30,18)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(18,12);

else gembel := gembel(18,12);

else gembel := gembel(12,6);

else gembel := gembel(12,6);

else gembel := gembel(6,0);

if y =0 then gembel := x

if 0 =0 then gembel := 0

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 6 = 1 then pedhet :=

13. for i:= 17 downto 1 do

if gembel(30,17)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(17,13);

else gembel := gembel(17,13);

else gembel := gembel(13,5);

else gembel := gembel(13,5);

else gembel := gembel(5,3);

else gembel := gembel(5,3);

else gembel := gembel(3,2);

else gembel := gembel(3,2);

else gembel := gembel(2,1);

else gembel := gembel(2,1);

else gembel := gembel(1,0);

if y =0 then gembel := x

if 0 =0 then gembel := 1

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 1 = 1 then pedhet := 2

14. for i:= 16 downto 1 do

if gembel(30,16)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(16,14);

else gembel := gembel(16,14);

else gembel := gembel(14,2);

else gembel := gembel(14,2);

else gembel := gembel(2,0);

if y =0 then gembel := x

if 0 =0 then gembel := 2

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 2 = 1 then pedhet :=

15. for i:= 15 downto 1 do

if gembel(30,15)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(15,0);

if y =0 then gembel := x

if 0 =0 then gembel := 15

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 15 = 1 then pedhet :=

16. for i:= 14 downto 1 do

if gembel(30,14)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(14,2);

else gembel := gembel(14,2);

else gembel := gembel(2,0);

if y =0 then gembel := x

if 0 =0 then gembel := 2

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 2 = 1 then pedhet :=

17. for i:= 13 downto 1 do

if gembel(30,13)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(13,4);

else gembel := gembel(13,4);

else gembel := gembel(4,1);

else gembel := gembel(4,1);

else gembel := gembel(1,0);

if y =0 then gembel := x

if 0 =0 then gembel := 1

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 1 = 1 then pedhet := 2

18. for i:= 12 downto 1 do

if gembel(30,12)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(12,6);

else gembel := gembel(12,6);

else gembel := gembel(6,0);

if y =0 then gembel := x

if 0 =0 then gembel := 6

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 6 = 1 then pedhet :=

19. for i:= 11 downto 1 do

if gembel(30,11)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(11,8);

else gembel := gembel(11,8);

else gembel := gembel(8,3);

else gembel := gembel(8,3);

else gembel := gembel(3,2);

else gembel := gembel(3,2);

else gembel := gembel(2,1);

else gembel := gembel(2,1);

else gembel := gembel(1,0);

if y =0 then gembel := x

if 0 =0 then gembel := 1

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 1 = 1 then pedhet := 2

20. for i:= 10 downto 1 do

if gembel(30,10)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(10,0);

if y =0 then gembel := x

if 0 =0 then gembel := 10

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 10 = 1 then pedhet :=

21. for i:= 9 downto 1 do

if gembel(30,9)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(9,3);

else gembel := gembel(9,3);

else gembel := gembel(3,0);

if y =0 then gembel := x

if 0 =0 then gembel := 3

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 3 = 1 then pedhet :=

22. for i:= 8 downto 1 do

if gembel(30,8)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(8,6);

else gembel := gembel(8,6);

else gembel := gembel(6,2);

else gembel := gembel(6,2);

else gembel := gembel(2,0);

if y =0 then gembel := x

if 0 =0 then gembel := 2

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 2 = 1 then pedhet :=

23. for i:= 7 downto 1 do

if gembel(30,7)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(7,2);

else gembel := gembel(7,2);

else gembel := gembel(2,1);

else gembel := gembel(2,1);

else gembel := gembel(1,0);

if y =0 then gembel := x

if 0 =0 then gembel := 1

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 1 = 1 then pedhet := 2

24. for i:= 6 downto 1 do

if gembel(30,6)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(6,0);

if y =0 then gembel := x

if 0 =0 then gembel := 6

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 6 = 1 then pedhet :=

25. for i:= 5 downto 1 do

if gembel(30,5)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(5,0);

if y =0 then gembel := x

if 0 =0 then gembel := 5

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 5 = 1 then pedhet :=

26. for i:= 4 downto 1 do

if gembel(30,4)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(4,2);

else gembel := gembel(4,2);

else gembel := gembel(2,0);

if y =0 then gembel := x

if 0 =0 then gembel := 2

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 2 = 1 then pedhet :=

27. for i:= 3 downto 1 do

if gembel(30,3)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(3,0);

if y =0 then gembel := x

if 0 =0 then gembel := 3

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 3 = 1 then pedhet :=

28. for i:= 2 downto 1 do

if gembel(30,2)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(2,0);

if y =0 then gembel := x

if 0 =0 then gembel := 2

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 2 = 1 then pedhet :=

29. for i:= 1 downto 1 do

if gembel(30,1)=1 then pedhet := pedhet+1;

else gembel := gembel(y,x mod y);

else gembel := gembel(1,0);

if y =0 then gembel := x

if 0 =0 then gembel := 1

if gembel(n,i) = 1 then pedhet := pedhet+1;

if gembel 1 = 1 then pedhet := 2

Jadi output yang ditampilkan hasil dari wedhus(30)adalah 8

45.jika p adalah suatu bilangan prima, x adalah bilangan bulat positif, dan pangkat (p,x) adalah fungsi p pangkat x (px), maka fungsi wedhus(pangkat9p,x)) akan menghasilkanoutput sesuai dengan rumus...{tuliskan rumusnya sesederhana mungkin} ( gunakan variable p,x, dann fungsi pangkat).

uses crt;

var

a : integer ;

function gembel(x,y : integer) : integer;

begin

if y=0 then gembel := x

else gembel := gembel(y,x mod y);

end;

function wedhus(n : integer) : integer;

var i,pedhet : integer;

begin

pedhet := 0;

for i:= n-1 downto 1 do

begin

if gembel(n,i)=1 then pedhet := pedhet+1;

end;

wedhus := pedhet;

end;

begin

a := wedhus(30);

write(a);

readkey;

end.

46. Berapah output yang akan dihasilkan jika program tersebut dijalankan ?var board:array[0..5] of longint;

var i,j: integer;

var board: array[0..5] of longint;

function kepo():integer;

var n:integer = 0;

begin

for i := 5 downto 0 do

begin

for i := n shl 1;

n := n + (board[i] mod 2);

end;

kepo := n;

end;

procedure tambah();

begin

for i := 0 to 5 do

board[i] := i;

tambah();

writeln(kepo)());

end.

begin

for i := 0 to 5 do

board[i] := i;

board akan di isi nilai i yang berulang sebanyak 6 kali

board 0 = 0

board 1 = 1

board 2 = 2

board 3 = 3

board 4 = 4

board 5 = 5

tambah();

masuk ke procedure tambah();

for i:= 0 to 17 do

for j:= 0 to 5 do

board[j] := board[j] + sqr(j+i);

looping i ke-0

board 0 = 0

board 1 = 2

board 2 = 6

board 3 = 12

board 4 = 20

board 5 = 30

looping i ke-1

board 0 = 1

board 1 = 6

board 2 = 15

board 3 = 28

board 4 = 45

board 5 = 66

looping i ke-2

board 0 = 5

board 1 = 15

board 2 = 31

board 3 = 53

board 4 = 81

board 5 = 115

looping i ke-3

board 0 = 14

board 1 = 31

board 2 = 56

board 3 = 89

board 4 = 130

board 5 = 179

looping i ke-4

board 0 = 30

board 1 = 56

board 2 = 92

board 3 = 138

board 4 = 194

board 5 = 260

looping i ke-5

board 0 = 55

board 1 = 92

board 2 = 141

board 3 = 202

board 4 = 275

board 5 = 360

looping i ke-6

board 0 = 91

board 1 = 141

board 2 = 205

board 3 = 283

board 4 = 375

board 5 = 481

looping i ke-7

board 0 = 140

board 1 = 205

board 2 = 286

board 3 = 383

board 4 = 496

board 5 = 625

looping i ke-8

board 0 = 204

board 1 = 286

board 2 = 386

board 3 = 504

board 4 = 640

board 5 = 794

looping i ke-9

board 0 = 285

board 1 = 386

board 2 = 507

board 3 = 648

board 4 = 809

board 5 = 990

looping i ke-10

board 0 = 385

board 1 = 507

board 2 = 651

board 3 = 817

board 4 = 1005

board 5 = 1215

looping i ke-11

board 0 = 506

board 1 = 651

board 2 = 820

board 3 = 1013

board 4 = 1230

board 5 = 1471

looping i ke-12

board 0 = 650

board 1 = 820

board 2 = 1016

board 3 = 1238

board 4 = 1486

board 5 = 1760

looping i ke-13

board 0 = 819

board 1 = 1016

board 2 = 1241

board 3 = 1494

board 4 = 1775

board 5 = 2084

looping i ke-14

board 0 = 1015

board 1 = 1241

board 2 = 1497

board 3 = 1783

board 4 = 2099

board 5 = 2445

looping i ke-15

board 0 = 1240

board 1 = 1497

board 2 = 1786

board 3 = 2107

board 4 = 2460

board 5 = 2845

looping i ke-16

board 0 = 1496

board 1 = 1786

board 2 = 2110

board 3 = 2468

board 4 = 2860

board 5 = 3286

looping i ke-17

board 0 = 1785

board 1 = 2110

board 2 = 2471

board 3 = 2868

board 4 = 3301

board 5 = 3770

masuk ke function kepo()

for i := 5 downto 0 do

n := 0 shl 1

n := 0 + (board[3770] mod 2)

n := 0

for i := 4 downto 0 do

n := 0 shl 1

n := 0 + (board[3770] mod 2)

n := 1

for i := 3 downto 0 do

n := 1 shl 1

n := 2 + (board[3770] mod 2)

n := 2

for i := 2 downto 0 do

n := 2 shl 1

n := 4 + (board[3770] mod 2)

n := 5

for i := 1 downto 0 do

n := 5 shl 1

n := 10 + (board[3770] mod 2)

n := 10

for i := 0 downto 0 do

n := 10 shl 1

n := 20 + (board[3770] mod 2)

n := 21

Maka function kepo() adalah = 21

47. Berapakah nilai board[1] pada akhir program ?

var i,j: integer;

var board: array[0..5] of longint;

function kepo():integer;

var n:integer = 0;

begin

for i := 5 downto 0 do

begin

for i := n shl 1;

n := n + (board[i] mod 2);

end;

kepo := n;

end;

procedure tambah();

begin

for i := 0 to 5 do

board[i] := i;

tambah();

writeln(kepo)());

end.

Untuk melihat hasilnya bisa di lihat di program nomor 46

Yaitu :

board[1] = 2110

di dapat dari

board 1 = 1

board 1 = 2

board 1 = 6

board 1 = 15

board 1 = 31

board 1 = 56

board 1 = 92

board 1 = 141

board 1 = 205

board 1 = 286

board 1 = 386

board 1 = 507

board 1 = 651

board 1 = 820

board 1 = 1016

board 1 = 1241

board 1 = 1497

board 1 = 1786

board 1 = 2110

48 . Apa keluaran dari program di atas ?

uses crt;

var

data1 : array[1..10] of integer;

data2,data3 : array[1..10] of integer;

i : integer;

begin

data1[1]:=4;

data1[2]:=10;

data1[3]:=2;

data1[4]:=5;

data1[5]:=1;

data1[6]:=9;

data1[7]:=7;

data1[8]:=5;

data1[9]:=6;

data1[10]:=8;

for i:= 1 to 10 do begin

data2[i] := 1;

end;

for i:= 1 to 10 do begin

inc(data2[data1[i]]);

end;

for i:= 2 to 10 do begin

data2[i] := data2[i] + data2[i-1];

end;

for i:= 10 downto 1 do

begin

data3[data2[data1[i]]]:= data1[i];

dec(data2[data1[i]]);

end;

for i:= 1 to 10 do

for i:= 1 to 10 do

write(data3[i]);

readln;

end.

49. Pertama cari dulu baris deretnya

uses crt;

var

a,b,n:longint;

e,j:extended;

begin

for a:= 1 to 1000000 do

begin

b:=(a\*a-a+1)\*(a\*a+a+1);

j:=a/b;

e:=e+j;

end;

writeln(e:0:5);

readln;

end.

Apabila dijabarkan akan jadi seperti ini:

1 x 3 = 3

3 x 7 = 21

7 x 13 = 91

13 x 21 = 273

untuk polanya

1 3 7 13 bisa menggunakan rumus(n2-n+1)

3 7 13 21 bisa menggunakan rumus(n2+n+1)

jadi untuuk mencari penyebutnya adalah penyebut = (n2-n+1)\*(n2+n+1)

Untuk programnya seperti dibawah ini.

uses crt;

var

a,b,n:longint;

e,j:extended;

begin

for a:= 1 to 1000000 do

begin

b:=(a\*a-a+1)\*(a\*a+a+1);

j:=a/b;

e:=e+j;

end;

writeln(e:0:5);

readln;

end.

Outputnya adalah 7864376,60646.

50. Pak danglek memiliki pipa sepanjang N meter, dan dia ingin memotongnya menjadi beberapa bagian sebanyak,banyaknya, setiap pipa harus memiliki panjang p meter, dimana I<P<N, dan P adalah bilangan bulat. Hal ini menunjukan bahwa panjang minimal potongan pipa adlaah 1 meter, disyaratkan bawha tidak ada 3 potongan manapun yang membentuk segitiga, Pak danglek meminta bantuan anda untuk membuat program menghitung maksimum banyaknya potongan pipa sesuai dengan syarat2 tersebut ?

uses crt;

var

a,b,c,n,total,count:longint;

begin

count:=0;

a:=0;

b:=0;

c:=1;

total:=c;

write('Masukan Panjang pipa = ');

readln(n);

while total<=n do

begin

b:=a;

a:=c;

c:=a+b;

total:=total+c;

inc(count);

end;

writeln(count);

readln();

end.

penyelesaiam :

ada syarat untuk membentuk segitiga

2 sisi terkecil > sisi terbesar

Caranya menggunakan deret fibonacci

misal terbentuknya segitiga jika sisinya A,B,C

maka : A + B > C

A + C > B

B + C > A

Contoh :

input panjang pipanya adalah 7 meter

outputnya 4,

jadi

1 + 1 + 2 + 3 = 7

Strategi terbaik adalah sengan selalu membuat potongan sekecil mungkin agar kita mendapatkan potongan sebanyak mungkin