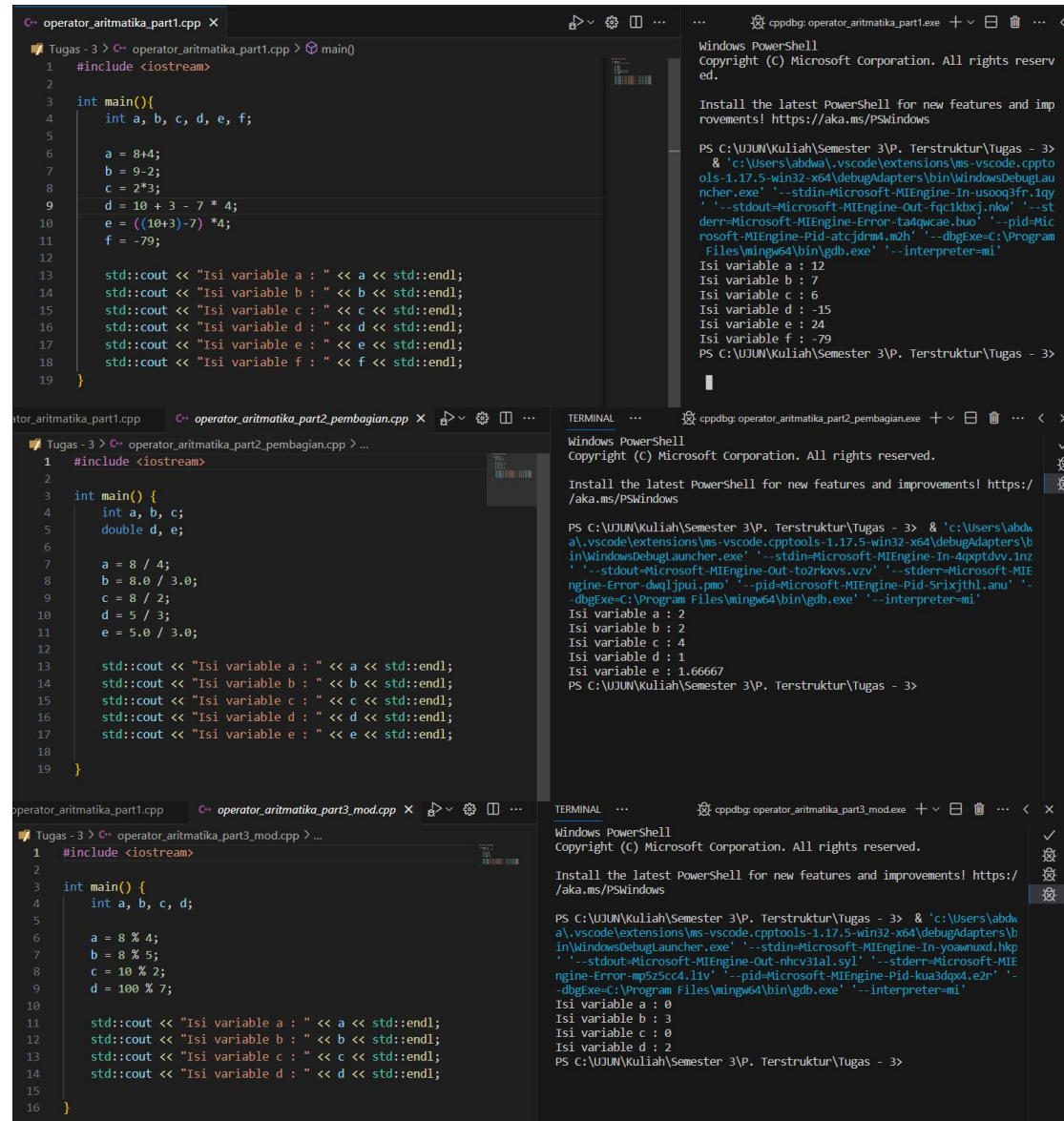


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Kelas : 2B TI RegBJB

1. Aritmatika



```
operator_aritmatika_part1.cpp
1 #include <iostream>
2
3 int main(){
4     int a, b, c, d, e, f;
5
6     a = 8+4;
7     b = 9-2;
8     c = 2*3;
9     d = 10 + 3 - 7 * 4;
10    e = ((10+3)-7) *4;
11    f = -79;
12
13    std::cout << "Isi variable a : " << a << std::endl;
14    std::cout << "Isi variable b : " << b << std::endl;
15    std::cout << "Isi variable c : " << c << std::endl;
16    std::cout << "Isi variable d : " << d << std::endl;
17    std::cout << "Isi variable e : " << e << std::endl;
18    std::cout << "Isi variable f : " << f << std::endl;
19 }
```

```
operator_aritmatika_part2_pembagian.cpp
1 #include <iostream>
2
3 int main() {
4     int a, b, c;
5     double d, e;
6
7     a = 8 / 4;
8     b = 8.0 / 3.0;
9     c = 8 / 2;
10    d = 5 / 3;
11    e = 5.0 / 3.0;
12
13    std::cout << "Isi variable a : " << a << std::endl;
14    std::cout << "Isi variable b : " << b << std::endl;
15    std::cout << "Isi variable c : " << c << std::endl;
16    std::cout << "Isi variable d : " << d << std::endl;
17    std::cout << "Isi variable e : " << e << std::endl;
18
19 }
```

```
operator_aritmatika_part3_mod.cpp
1 #include <iostream>
2
3 int main(){
4     int a, b, c, d;
5
6     a = 8 % 4;
7     b = 8 % 5;
8     c = 10 % 2;
9     d = 100 % 7;
10
11    std::cout << "Isi variable a : " << a << std::endl;
12    std::cout << "Isi variable b : " << b << std::endl;
13    std::cout << "Isi variable c : " << c << std::endl;
14    std::cout << "Isi variable d : " << d << std::endl;
15
16 }
```

```
Terminal Output 1:
PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3> & 'c:\Users\abdwa\vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-usooq3fr.1qy' '--stdout=Microsoft-MIEngine-Out-fqc1kbxj.nkw' '--stderr=Microsoft-MIEngine-Error-ta4qcae.buo' '--pid=Microsoft-MIEngine-Pid-atcjdmm4.m2h' '--dbgExe=C:\Program Files\mingw64\bin\gdb.exe' '--interpreter=mi'
Isi variable a : 12
Isi variable b : 7
Isi variable c : 6
Isi variable d : -15
Isi variable e : 24
Isi variable f : -79
PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3>
```

```
Terminal Output 2:
PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3> & 'c:\Users\abdwa\vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-4qpxtdwv.1nz' '--stdout=Microsoft-MIEngine-Out-to2rkxvs.vzv' '--stderr=Microsoft-MIEngine-Error-dwqljpui.pmo' '--pid=Microsoft-MIEngine-Pid-5rixjthl.anu' '--dbgExe=C:\Program Files\mingw64\bin\gdb.exe' '--interpreter=mi'
Isi variable a : 2
Isi variable b : 2
Isi variable c : 4
Isi variable d : 1
Isi variable e : 1.66667
PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3>
```

```
Terminal Output 3:
PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3> & 'c:\Users\abdwa\vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-yoawnuxd.hkp' '--stdout=Microsoft-MIEngine-Out-nhcv31al.syl' '--stderr=Microsoft-MIEngine-Error-mp5z5cc4.1lv' '--pid=Microsoft-MIEngine-Pid-ku3dqx4.e2r' '--dbgExe=C:\Program Files\mingw64\bin\gdb.exe' '--interpreter=mi'
Isi variable a : 0
Isi variable b : 3
Isi variable c : 0
Isi variable d : 2
PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3>
```

2. Increment & Decrement

```
1 #include <iostream>
2
3 int main() {
4
5     int a = 7;
6     a++;
7     std::cout << "Isi variable a : " << a << std::endl;
8     int b = 7;
9     ++b;
10    std::cout << "Isi variable b : " << b << std::endl;
11    int c = 7;
12    c--;
13    std::cout << "Isi variable c : " << c << std::endl;
14    int d = 7;
15    --d;
16    std::cout << "Isi variable d : " << d << std::endl;
17
18 }
```

```
1 #include <iostream>
2
3 int main() {
4
5     int a = 5;
6     std::cout << "Pre & Post Increment" << std::endl;
7     std::cout << "Isi variable a : " << a++ << std::endl;
8     std::cout << "Isi variable a : " << a << std::endl;
9     std::cout << "Isi variable a : " << ++a << std::endl;
10    std::cout << "Isi variable a : " << a << std::endl;
11
12    std::cout << std::endl;
13
14    int b = 5;
15    std::cout << "Pre & Post Decrement" << std::endl;
16    std::cout << "Isi variable b : " << a-- << std::endl;
17    std::cout << "Isi variable b : " << a << std::endl;
18    std::cout << "Isi variable b : " << --a << std::endl;
19    std::cout << "Isi variable b : " << a << std::endl;
20
21 }
```

3. Perbandingan

```
1 #include <iostream>
2
3 int main() {
4
5     int a = 10;
6     int b = 5;
7     bool hasil;
8     std::cout << "Isi variable a : " << a << std::endl;
9     std::cout << "Isi variable b : " << b << std::endl;
10
11    hasil = a == b;
12    std::cout << "Apakah a == b ? " << hasil << std::endl;
13
14    hasil = a != b;
15    std::cout << "Apakah a != b ? " << hasil << std::endl;
16
17
18    hasil = a > b;
19    std::cout << "Apakah a > b ? " << hasil << std::endl;
20
21
22    hasil = a < b;
23    std::cout << "Apakah a < b ? " << hasil << std::endl;
24
25
26    hasil = a >= b;
27    std::cout << "Apakah a >= b ? " << hasil << std::endl;
28
29
30    hasil = a <= b;
31    std::cout << "Apakah a <= b ? " << hasil << std::endl;
32
33 }
```

4. Operator Logika

```
C++ operator_aritmatika_part1.cpp C++ operator_logika.cpp
Tugas - 3 > C++ operator_logika.cpp > ...
1 #include <iostream>
2
3 int main() {
4
5     bool a = true;
6     bool b = false;
7     bool hasil;
8     std::cout << "Nilai dari a : " << a << std::endl;
9     std::cout << "Nilai dari b : " << b << std::endl;
10
11     hasil = a && a;
12     std::cout << "Hasil dari a && a : " << hasil << std::endl;
13
14     hasil = a && b;
15     std::cout << "Hasil dari a && b : " << hasil << std::endl;
16
17     hasil = a || b;
18     std::cout << "Hasil dari a || b : " << hasil << std::endl;
19
20     hasil = b || b;
21     std::cout << "Hasil dari b || b : " << hasil << std::endl;
22
23     hasil = !a;
24     std::cout << "Hasil dari !a : " << hasil << std::endl;
25
26     hasil = !b;
27     std::cout << "Hasil dari !b : " << hasil << std::endl;
28
29 }

PROBLEMS TERMINAL ... cpdbg: operator_logika.exe
Windows PowerShell
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https://aka.ms/PSWindows

PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3> & 'C:\Users\abdwa\vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-zsoglt5m.egv' '--stdout=Microsoft-MIEngine-Out-mux3vsew.rmr' '--stderr=Microsoft-MIEngine-Error-ypkjxd1d.wd4' '--pid=Microsoft-MIEngine-Pid-s5hfde2v.iyy' '--dbgExe=C:\Program Files\mingw64\bin\gdb.exe' '--interpreter=mi'
Nilai dari a : 1
Nilai dari b : 0
Hasil dari a && a : 1
Hasil dari a && b : 0
Hasil dari a || b : 1
Hasil dari b || b : 0
Hasil dari !a : 0
Hasil dari !b : 1
PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3>
```

```
C++ operator_aritmatika_part1.cpp C++ operator_logika_part2.cpp
Tugas - 3 > C++ operator_logika_part2.cpp > ...
1 #include <iostream>
2
3 int main() {
4     bool hasil;
5
6     hasil = (false && true) || (true || false);
7     std::cout << "Hasil : " << hasil << std::endl;
8
9     hasil = !false && (false || true);
10    std::cout << "Hasil : " << hasil << std::endl;
11
12    hasil = ((true && true) || (false || true)) & !true;
13    std::cout << "Hasil : " << hasil << std::endl;
14
15 }

PROBLEMS TERMINAL ... cpdbg: operator_logika_part2.exe
Windows PowerShell
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PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3> & 'C:\Users\abdwa\vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-yctalygj.mde' '--stdout=Microsoft-MIEngine-Out-yzbwqmj.2qu' '--stderr=Microsoft-MIEngine-Error-nbts55av.myf' '--pid=Microsoft-MIEngine-Pid-ivkicpvl.2qd' '--dbgExe=C:\Program Files\mingw64\bin\gdb.exe' '--interpreter=mi'
Hasil : 1
Hasil : 1
Hasil : 0
PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3>
```

5. Bit Wise

```
C++ operator_aritmatika_part1.cpp C++ operator_bitwise.cpp
Tugas - 3 > C++ operator_bitwise.cpp > ...
1 #include <iostream>
2
3 int main() {
4     int a = 181;
5     int b = 108;
6     int hasil;
7
8     hasil = a & b;
9     std::cout << "Hasil dari a & b : " << hasil << std::endl;
10
11     hasil = a | b;
12     std::cout << "Hasil dari a | b : " << hasil << std::endl;
13
14     hasil = a ^ b;
15     std::cout << "Hasil dari a ^ b : " << hasil << std::endl;
16
17     hasil = ~a;
18     std::cout << "Hasil dari ~a : " << hasil << std::endl;
19
20     hasil = a >> 1;
21     std::cout << "Hasil dari a >> 1 : " << hasil << std::endl;
22
23     hasil = b << 2;
24     std::cout << "Hasil dari b << 2 : " << hasil << std::endl;
25
26 }

TERMINAL ... cpdbg: operator_bitwise.exe
Windows PowerShell
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Install the latest PowerShell for new features and improvements!
https://aka.ms/PSWindows

PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3> & 'C:\Users\abdwa\vscode\extensions\ms-vscode.cpptools-1.17.5-win32-x64\debugAdapters\bin\WindowsDebugLauncher.exe' '--stdin=Microsoft-MIEngine-In-m10qhljy.phe' '--stdout=Microsoft-MIEngine-Out-3fgkkakl.vsr' '--stderr=Microsoft-MIEngine-Error-5s1dz1lc.zgk' '--pid=Microsoft-MIEngine-Pid-ds2yyolc.jip' '--dbgExe=C:\Program Files\mingw64\bin\gdb.exe' '--interpreter=mi'
Hasil dari a & b : 36
Hasil dari a | b : 253
Hasil dari a ^ b : 217
Hasil dari ~a : -182
Hasil dari a >> 1 : 90
Hasil dari b << 2 : 432
PS C:\UJUN\Kuliah\Semester 3\P. Terstruktur\Tugas - 3>
```