Sample Program 3.1

Average Age

Problem statement. Write five different versions of a program to average three ages and output the results to the console with a label. Each version should use a different sequence to total the three ages.

Solution #1.

```
#include <iostream>
using namespace std;

int main()
{
  int age1 = 19;
  int age2 = 21;
  int age3 = 30;
  int averageAge;

  averageAge = age1 + age2;
  averageAge = averageAge + age3;
  averageAge = averageAge / 3;

  cout << "The average of three ages is " << averageAge << endl;
}
```

Solution #2.

```
#include <iostream>
using namespace std;

int main()
{
  int age1 = 19;
  int age2 = 21;
  int age3 = 30;
  int averageAge;

  averageAge = age1 + age2 + age3;
  averageAge = averageAge / 3;

  cout << "The average of three ages is " << averageAge << endl;
}
```

Solution #3.

```
#include <iostream>
using namespace std;

int main()
{
  int age1 = 19;
  int age2 = 21;
  int age3 = 30;
  int averageAge;

  averageAge = (age1 + age2 + age3) / 3;

  cout << "The average of three ages is " << averageAge << endl;
}
```

Solution #4.

```
#include <iostream>
using namespace std;

int main()
{
  int age1 = 19;
  int age2 = 21;
  int age3 = 30;
  int averageAge = (age1 + age2 + age3) / 3;

  cout << "The average of three ages is " << averageAge << endl;
}
```

Solution #5.

```
#include <iostream>
using namespace std;

int main()
{
  int age1 = 19;
  int age2 = 21;
  int age3 = 30;

  cout << "The average of three ages is ";
  cout << ((age1 + age2 + age3) / 3) << endl;
}
```