Assignment Number 3:

The precedence of operators covered so far.

1. The round brackets ()
2. Logical not: '!'
3. Multiplication/Division(quotient)/Modulus(remainder): '*', '/', '%'
4. Addition/Subtraction: '+', '- '
5. Less than/less than or equal to/greater than/greater than or equal to: '<', '<=', '>', '>='.
6. Equal to, not equal to: '=', '! ='
7. Logical and logical or: '&&', '| |'
8. Assignment: '='

Questions:

1. Determine the value in the 'rs':
   int a=10;
   int b=20;
   int c=3;
   int d=2;
   int rs;
   1.1. rs = a + b – d;
   1.2. rs = a – b * d;
   1.3. rs = a * c – b;
   1.4. rs = a * c + b * d;
   1.5. rs = a / c + b * d;
   1.6. rs = a * c + b / d;
   1.7. rs = a + b * c – d;
   1.8. rs = a – b / c + d;
   1.9. rs = (a+b) * (c-d);
   1.10.   rs = (a + b) * c / d;
   1.11.   rs = ((a + b) * (c – d)) / (a * (b + (c – d) * b));
   1.12.   rs = (a * (b + c * (d + a))) / (a – (b + (c / d)));
   1.13.   rs = a + b * c + a / d - b / c + a / 2;
   1.14.   rs = ((((a + b) * c) + d)/c) + a;
   1.15.   rs = (-b + b*b – 4*a*c)/(2*a);
   1.16.   rs = (-b - b*b – 4*a*c)/(2*a);
   1.17.   rs = -b + b*b – 4*a*c / 2*a;
   1.18.   rs = -b – b*b – 4*a*c/ 2*a;
   1.19.   rs = (a+b)/2 * (c+d)/2;
   1.20.   rs = (a + b + c + d) / 4;
   1.21.   rs = a + b + c + d / 4;

1.22.   rs = (a*d – b*c)/2;
1.23.   rs = 1 – d*d*d/3*2*1 + d*d*d*d*d/5*4*3*2*1;
1.24.   rs = d – d*d/2 + d*d*d*d/4*3*2*1;
1.25.   rs = (a*b*c + b*c*a + c*a*b) / 3;

2. Determine the value in rs.
   float a = 3.4;
   float b = 2.0;
   float c = 2.5;
   float d = 9.1;
   2.1. rs = a + b + c + d;
   2.2. rs = a/b + c/d;
   2.3. rs = (a+b)/(c+d);
   2.4. rs = a * 9 / 5 + 32;
   2.5. rs = ((a+b+c)/2)*((a+b+c)/2 – a)*((a+b+c)/2 – b)*((a + b + c)/2 – c);
   2.6. rs = ((a+b+c+d)/2-a)*((a+b+c+d)/2-b)*(a+b+c+d)/2-c)*
        ((a+b+c+d)/2-d);
   2.7. rs = (a + b + c + d) / 4;
   2.8. rs = a + b + c + d / 4;
   2.9. rs = (-b + b*b – 4*a*c)/(2*a);
   2.10.   rs = (-b - b*b – 4*a*c)/(2*a);
   2.11.   rs = ((((a + b) * c) + d)/c) + a;
   2.12.   rs = d – d*d/2 + d*d*d*d/4*3*2*1;
   2.13.   rs = (b*b + c*c – a*a)/(2*b*c);
   2.14.   rs = 2 * 3.1415 * b;
   2.15.   rs = (3.1415/180.0) * b;
   2.16.   rs = (180.0/3.1415) * b;
   2.17.   rs = a*a – 2*a*b + b*b
            rs = (a-b) * (a-b)
   2.18.   rs = a*a + 2*a*b + b*b
            rs = (a+b) * (a+b)
   2.19.   rs = a*a*a + 3*a*a*b + 3*a*b*b + b*b*b
            rs = (a+b) * (a+b) * (a+b)
   2.20.   rs = a*a*a – 3*a*a*b + 3*a*b*b – b*b*b
            rs = (a-b) * (a-b) * (a-b)
   2.21.   rs = (a+b)*(a+b) – (a-b)*(a-b)
            rs = 4 * a * b
   2.22.   rs = 2 * (a*a + b*b)
            rs = (a+b) * (a+b) + (a-b) * (a-b)
   2.23.   rs = a*a*a + b*b*b
            rs = (a+b)*(a+b)*(a+b) – 3*a*b*(a+b)
   2.24.   rs = a*a*a – b*b*b
            rs = (a-b)*(a-b)*(a-b) + 3*a*b*(a-b)

2.25.   rs = a*a*a + b*b*b + c*c*c – 3*a*b*c
         rs = (a+b+c)*(a*a +b*b+c*c -a*b -b*c-c*a)