```
(a)
                                     (b)
                                                                                    (c)
                                                                                       1 int fact(int n) {
   int fact(int n) {
                                          r_0 = 1
                                                                                            int r = 1;
                                                             \mathbf{r}_1 = \mathbf{\Phi}(\mathbf{r}_0, \mathbf{r}_2)
                                          i_0 = 2
      int r = 1;
                                                                                            if (n < 13) {
      int i = 2;
                                                             i_1 = \phi(i_0, i_2)
                                                                                                int i = 2;
      while (i \le n) {
                                                             p = i_1 \le n
                                                                                               while (i \le n) {
                                                             if p goto L<sub>7</sub>
          r *= i;
                                                                                                   r *= i;
          i++;
                                                                                                   i++;
                                          r_2 = r_1 * i_1
8
      return r;
                                          i_2 = i_1 + 1
                                                             10
                                                                 ret r<sub>0</sub>
                                                                                       9
9 }
                                           goto L<sub>3</sub>
                                                                                      10
                                                                                            return r;
                                                                                     11 }
```