Executable	Tests that Failed
msdscript0	Trying: _let m=_let b=33 * 94 * _let z=_let z=42 + r + q _in z + r + k * n _in _let m=j _in 15 * _let p=39 _in g + q * y * y + 70 * 78 + m * b * 91 * 13 + _let d=70 * _let f=q * 7 _in _let v=p _in y * 73 + f + 45 + 40 + _let a=35 _in 77 + 6 + 9 _in 14 + j + 92 * n * v + 23 * f * _let q=s _in m * y * 9 + 3 * _let p=95 + 5 _in 82 * 75 + p * c + 18 + 87 * o * n + _let k=51 _in o * 1 + _let g=m * d _in v + 68 + _let c=k _in r * 35 + 3 * b * i + 24 * z * 61 * _let g=96 _in k + _let c=x _in d * _let f=75 _in n + 99 * g * _let j=75 _in w * m * 22 + a + d + 40 * o * _let r=t _in 60 * 56 _in 18 * _let i=_let x=_let k=p * 42 + 33 _in _let p=a _in _let h=28 _in 29 + v * _let n=l _in 4 + a _in d + 77 + 32 + 85 + w + i * _let v=97 _in 17 + r + 73 + _let r=_let a=* t * a _in 85 _in 0 + 29 + n * 84 + _let u=u + o _in y * 94 + 10 _in 35 _in _let n=63 _in 50 * x + d + _let v=_let x=z _in w * 88 * f _in 43 * t * 4 + _let o=c _in b + 15 + _let u=76 _in h * _let l=z _in c * h * _let q=34 _in 51 + k * 46 + g + 51 * 56 + _let i=_let j=82 _in 14 + u _in _let p=90 _in b * d * j + x * _let s=51 _in d * 5 msdscript print: (_let m=(_let b=(33*(94*(_let z=(_let z=(42+(r+q)) _in (z+(r+(k*n)))) _in (_let m=j _in ((y*73)+(f*(45+(40+(_let a=35 _in (77+(6+9)))))))))))))))))))))))))))))))))))
msdscript1	Trying: 9 msdscript interp: 9 tester interp: libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - interp Trying: 63 msdscript interp: 63 tester interp: libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - interp
msdscript2	Trying: 40 Trying: f Trying: z Trying: 82 Trying: 99 Trying: 23 Trying: 71 Trying: 52

```
Trying: o
                    Trying: 90
                     Trying: f + _let h=s + _let j=_let v=e * b _in _let z=77 _in 51 _in p _in _let i=g _in 1 * _let d=p _in 23 +
                    msdscript pretty print: f + _let h = s + _let j = _let v = e * b
                              _in _let z = 77
                                 in 51
                               in p
                        _in _let i = g
                           _in 1 * _let d = p
                                 _in 23 + 80
                    tester pretty print: f + _let h = s + _let j = _let v = e * b
                                      _in _let z = 77
                                          _in 51
                                 in p
                       _in _let i = g
                          _in 1 * _let d = p
                                 in 23 + 80
                    libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty
                    print
                    Trying: c + _let n=8 _in 0 * 95 + p * s + j
                    msdscript pretty print: c + _let n = 8
                        _in 0 * 95 + p * s + j
                    tester pretty print: c + _let n = 8
                       _in 0 * 95 + p * s + i
                    libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty
                    print
                    Trying: o
msdscript3
                    Trying: 40 + 7 * _let f=94 _in _let i=61 + r _in q * _let p=66 _in _let a=16 _in c * 21 * 32 + f * p * 96 * m
                    + 54 * e * m + x
                    msdscript print: (40+(7*(_let f=94 _in (_let i=(61+r) _in (q*(_let p=66 _in (_let a=16 _in
                    ((c^*(21^*32))+((f^*(p^*(96^*m)))+((54^*(e^*m))+x))))))))
                    tester print: (40*(7*(_let f=94 _in (_let i=(61*r) _in (q*(_let p=66 _in (_let a=16 _in
                    ((c^*(21^*32))^*((f^*(p^*(96^*m)))^*((54^*(e^*m))^*x))))))))
                    libc++abi: terminating due to uncaught exception of type std::runtime error: different results - print
                    Trying: y
                    Trying: 17 + _let q=4 _in 84 * _let k=_let d=b * _let j=n _in h * 41 * 71 _in _let v=j _in u * 6 + e + _let
                    p=n + 90 in b * 84 in j + 55
                    msdscript print: (17+(_let q=4 _in (84*(_let k=(_let d=(b*(_let j=n _in (h*(41*71)))) _in (_let v=j _in
                    ((u^*6)+(e+(_let p=(n+90) _in (b^*84)))))) _in (j+55)))))
                    tester print: (17*(_let q=4 _in (84*(_let k=(_let d=(b*(_let j=n _in (h*(41*71)))) _in (_let v=j _in
                    ((u^*6)^*(e^*(_let p=(n^*90) _in (b^*84)))))) _in (j^*55)))))
                    libc++ab
                    Trying: _let o=_let |=13 * _let c=_let y=p * v + 82 _in t + 48 + 7 * i * f + 30 + 44 _in _let r=_let k=m _in
msdscript4
                    99 + o + d * _let s=x _in 9 _in _let o=59 + i _in y _in p * a + _let e=e _in _let u=27 _in j + 6 _in _let
                    g=_let s=v + t + 94 * j _in _let f=22 _in g _in p + 65 * _let s=_let v=_let s=43 * v _in z * 49 + 27 _in 34
                     + r * I * 84 _in 39 * t * 59 * 18 + _let q=t _in 35 * 81 * z + d + 28 + 54 + p + k * n
                    msdscript pretty print: let o = let l = 13 * let c = let y = p * v + 82
                                 _in t + 48 + 7 * i * f + 30 + 44
                               _{in} _{let} r = _{let} k = m
                                                                                                  _{in 99 + o + d * _{let s = x}}
```

```
_in 9
                                  _in _let o = 59 + i
                                     _in y
                           _in p * a + _let e = e
                                    _in _let u = 27
                                      _in j + 6
                     _in _let g = _let s = v + t + 94 * j
                     _in _let f = 22
                    _in g
                        _in p + 65 * _let s = _let v = _let s = 43 * v
                                        in z * 49 + 27
                    _in 34 + r * l * 84
                                  _in 39 * t * 59 * 18 + _let q = t
                                                  _in 35 * 81 * z + d + 28 + 54 + p + k * n
                    tester pretty print: _let o = _let I = 13 * _let c = _let y = p * v + 82
                                          _in t + 48 + 7 * i * f + 30 + 44
                                    _in _let r = _let k = m
                                             in 99 + o + d * let s = x
                                                         _in 9
                                       _in _let o = 59 + i
                                           _in y
                          _in p * a + _let e = e
                                   _in _let u = 27
                                      _in j + 6
                    _in _let g = _let s = v + t + 94 * j
                             _in _let f = 22
                                  in g
                       _in p + 65 * _let s = _let v = _let s = 43 * v
                                             _in z * 49 + 27
                                        in 34 + r * I * 84
                                 _in 39 * t * 59 * 18 + _let q = t
                                                 _in 35 * 81 * z + d + 28 + 54 + p + k * n
                    libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty
                    print
                    Trying: 63 + 71
                    Trying: p * 45 * _let x=32 _in 31 * _let q=c * 60 _in _let k=29 + r _in _let z=y _in 67 + 9 * e + f + b * 42
                    * m * h
                    msdscript pretty print: p * 45 * _let x = 32
                           _in 31 * _let q = c * 60
                                  _in _let k = 29 + r
                                     _{in} _{let} z = y
                                        in 67 + 9 * e + f + b * 42 * m * h
                    tester pretty print: p * 45 * _let x = 32
                          _in 31 * _let q = c * 60
                                 _{in} _{let k} = 29 + r
                                    _{in} _{let} z = y
                                        _in 67 + 9 * e + f + b * 42 * m * h
                    libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty
                    Trying: _let u=_let t=52 * 84 * _let o=i _in k + s + 26 _in 93 _in _let b=_let j=_let p=_let r=86 * z _in v +
msdscript5
                    w + w * b * v * _let a=99 _in j + 45 _in 67 _in 35 * 10 * y + a * 49 + v + _let j=38 _in 72 * 2 + _let s=29
```

```
_in w + b _in 54 + _let y=82 + 57 * _let m=p + 55 _in 65 + 20 + 4 + 99 + _let c=r _in 63 * 32 * x + 72 *
25 + 28 + m * _let r=55 + a _in _let h=71 _in h + 3 * v _in l * _let b=z _in i + 61 * 44 + h + n * _let k=m
_in 28 * I * 47 + n * z + v * _let k=_let a=_let a=j _in _let m=_let e=_let d=_let b=5 _in r + g _in j _in 10
* _let n=87 * h _in 94 * 62 + _let g=t * 20 _in x * _let m=15 + 21 * q * p _in 24 + m * _let n=26 _in 49
_in g * 15 _in _let s=55 + 76 + g _in _let w=m + f * 88 * x _in k + e + 94 + y + 32 _in _let u=46 _in j
msdscript pretty print: _let u = _let t = 52 * 84 * _let o = i
                                _in k + s + 26
                  in 93
 _{in} = _{in
                                                                                                                                                                            _in v + w + w * b * v * _let a = 99
                                                                                                                                                                                                                  _in j + 45
                       _in 67
                                                                                                                                                             _{in 35 * 10 * y + a * 49 + v + _{let j} = 38}
                                                                                                                                                                                                               in 72 * 2 + let s
= 29
                                                                                                                                                                                                                                     _in w + b
         _in 54 + _let y = 82 + 57 * _let m = p + 55
_in 65 + 20 + 4 + 99 + _let c = r
_in 63 * 32 * x + 72 * 25 + 28 + m * _let r = 55 + a
_in _let h = 71
_in h + 3 * v
                         _{in l * _{let b = z}
                                       _in i + 61 * 44 + h + n * _let k = m
                                                                                 _in 28 * I * 47 + n * z + v * _let k = _let a = _let a = j
                                                                                                                                               _in _let m = _let e = _let d = _let b = 5
_in r + g
                                                                                                                                                                     _in j
_in 10 * _let n = 87 * h
_in 94 * 62 + _let g = t * 20
_in x * _let m = 15 + 21 * q * p
_in 24 + m * _let n = 26
_in 49
                                                                                                                                                       _in g * 15
_{in} _{let} s = 55 + 76 + g
_in _let w = m + f * 88 * x
_in k + e + 94 + y + 32
                                                                                                                                  _in _let u = 46
                                                                                                                                         _in j
tester pretty print: _let u = _let t = 52 * 84 * _let o = i
                                           _in k + s + 26
                in 93
_in _let b = _let j = _let p = _let r = 86 * z
                                                  _{in} v + w + w * b * v * _{let} a = 99
```

```
_in j + 45
               _in 67
         _in 35 * 10 * y + a * 49 + v + _let j = 38
                              _in 72 * 2 + _let s = 29
                                       _in w + b
   in 54 + let y = 82 + 57 * let m = p + 55
                      in 65 + 20 + 4 + 99 + let c = r
                                      _in 63 * 32 * x + 72 * 25 + 28 + m * _let r = 55 + a
                                                               _in _let h = 71
                                                                  _in h + 3 * v
          _{in l*_{let b} = z}
               _in i + 61 * 44 + h + n * _let k = m
                                 _in 28 * I * 47 + n * z + v * _let k = _let a = _let a = j
                                                                 _in _let m = _let e = _let d = _let b = 5
                                                                                      _in r+g
                                                                                 _in j
                                                                           _in 10 * _let n = 87 * h
                                                                                 _in 94 * 62 + _let g = t *
                                                                                           _in x * _let m
= 15 + 21 * q * p
                                                                                                 _in 24 +
m * _let n = 26
in 49
                                                                     _in g * 15
                                                            _in _let s = 55 + 76 + g
                                                               _in _let w = m + f * 88 * x
                                                                  _in k + e + 94 + y + 32
                                                      _in _let u = 46
                                                         in j
libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty
print
Trying: _let u=_let t=52 * 84 * _let o=i _in k + s + 26 _in 93 _in _let b=_let j=_let p=_let r=86 * z _in v +
w + w * b * v * _let a=99 _in j + 45 _in 67 _in 35 * 10 * y + a * 49 + v + _let j=38 _in 72 * 2 + _let s=29
_in w + b _in 54 + _let y=82 + 57 * _let m=p + 55 _in 65 + 20 + 4 + 99 + _let c=r _in 63 * 32 * x + 72 *
25 + 28 + m * let r=55 + a in let h=71 in h + 3 * v in l * let b=z in i + 61 * 44 + h + n * let k=m
_in 28 * I * 47 + n * z + v * _let k=_let a=_let a=j _in _let m=_let e=_let d=_let b=5 _in r + g _in j _in 10
* _let n=87 * h _in 94 * 62 + _let g=t * 20 _in x * _let m=15 + 21 * q * p _in 24 + m * _let n=26 _in 49
_in g * 15 _in _let s=55 + 76 + g _in _let w=m + f * 88 * x _in k + e + 94 + y + 32 _in _let u=46 _in j
msdscript pretty print: _let u = _let t = 52 * 84 * _let o = i
            _in k + s + 26
      _in 93
_{in} _{let} b = _{let} j = _{let} p = _{let} r = 86 * z
                                                                        in v + w + w * b * v * let a = 99
                                                                                        _in j + 45
          _in 67
                                                                  in 35 * 10 * y + a * 49 + v + let j = 38
                                                                                       in 72 * 2 + let s
= 29
                                                                                                 in w + b
    in 54 + let y = 82 + 57 * let m = p + 55
_in 65 + 20 + 4 + 99 + _let c = r
```

```
_in 63 * 32 * x + 72 * 25 + 28 + m * _let r = 55 + a
_in _let h = 71
_in h + 3 * v
          _in I * _let b = z
                 _in i + 61 * 44 + h + n * _let k = m
                                   _in 28 * I * 47 + n * z + v * _let k = _let a = _let a = j
                                                              _in _let m = _let e = _let d = _let b = 5
_in r + g
                                                                       _in j
_in 10 * _let n = 87 * h
_in 94 * 62 + _let g = t * 20
_in x * _let m = 15 + 21 * q * p
_in 24 + m * _let n = 26
in 49
                                                                 _in g * 15
_{in} let s = 55 + 76 + g
_in _let w = m + f * 88 * x
_in k + e + 94 + y + 32
                                                        _in _let u = 46
                                                           _in j
tester pretty print: _let u = _let t = 52 * 84 * _let o = i
                  _in k + s + 26
       in 93
_in _let b = _let j = _let p = _let r = 86 * z
                     _{in} v + w + w * b * v * _{let} a = 99
                                      _in j + 45
                in 67
         _in 35 * 10 * y + a * 49 + v + _let j = 38
                               _in 72 * 2 + _let s = 29
                                        _in w + b
   _in 54 + _let y = 82 + 57 * _let m = p + 55
                       _in 65 + 20 + 4 + 99 + _let c = r
                                       _in 63 * 32 * x + 72 * 25 + 28 + m * _let r = 55 + a
                                                                _in _let h = 71
                                                                    _in h + 3 * v
          _in I * _let b = z
                _{in} i + 61 * 44 + h + n * _{let} k = m
                                  _in 28 * I * 47 + n * z + v * _let k = _let a = _let a = j
                                                                   _in _let m = _let e = _let d = _let b = 5
                                                                                         _in r+g
                                                                                   in j
                                                                            _in 10 * _let n = 87 * h
                                                                                   _in 94 * 62 + _let g = t *
20
                                                                                             _in x * _let m
```

```
= 15 + 21 * q * p
                                                                                                                      _in 24 +
                    m * _let n = 26
                    in 49
                                                                                          _in g * 15
                                                                                _in _let s = 55 + 76 + g
                                                                                    _in _let w = m + f * 88 * x
                                                                                      _in k + e + 94 + y + 32
                                                                           _in _let u = 46
                                                                             _in j
                    libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty
                    print
                                  ./test_msdscript msdscript msdscript5
                    corinnejones@corinnes-mbp MSDScript % ./test_msdscript msdscript msdscript5
                    Trying: 79 + n + _let c=_let i=_let u=_let f=l _in _let e=54 _in 11 _in 10 _in _let g=_let a=b + 15 + l + k
                    _in _let z=v _in 51 + 49 * k * _let p=y + 7 _in k _in 83 _in 87 + _let r=r * b * c + 48 * 37 _in r * b
                    msdscript pretty print: 79 + n + _let c = _let i = _let u = _let f = l
                                _in _let e = 54
                                   _in 11
                                 in 10
                           _in _let g = _let a = b + 15 + l + k
                                                                                                                       _in _let
                    z = v
                                                                                                                          _in
                    51 + 49 * k * _let p = y + 7
                    _in k
                               in 83
                           _in 87 + _let r = r * b * c + 48 * 37
                                 in r * b
                    tester pretty print: 79 + n + _let c = _let i = _let u = _let f = I
                                            _in _let e = 54
                                               _in 11
                                      _in 10
                                _in _let g = _let a = b + 15 + l + k
                                         _in _let z = v
                                            _{in} 51 + 49 * k * _{let} p = y + 7
                                                         _in k
                          _in 83
_in 87 + _let r = r * b * c + 48 * 37
                    libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty
                    print
                    Trying: 81 * _let o=7 + 53 _in _let t=87 _in 79
msdscript6
                    msdscript pretty print: 81 * _let o = 7 + 53
                        _in _let t = 87
                           _in 79
                    tester pretty print: 81 * _let o = 7 + 53
                    _in _let t = 87
                    in 79
                    libc++abi: terminating due to uncaught exception of type std::runtime error: different results - pretty
                    Trying: i * 51
```

```
Trying: 22
                     Trying: 48 * w * 98 + 44 * 36
                     Trying: 58 + _let e=_let b=g * n + _let i=l _in 62 _in p + 44 + 70 * 21 _in 38 * 59 + _let d=21 + 41 _in n
                     + _let c=q + 54 + 75 _in _let b=_let w=s _in _let r=v _in 65 * _let c=u _in 77 + 36 * 86 + o _in _let j=c +
                     92 + u + 27 _in o + 12 * b * t * _let d= _let g=_let w=_let v=i _in 18 * w _in c + 49 _in 10 + n * 35 _in
                     let j=o + 0 _in g
                    msdscript pretty print: 58 + _let e = _let b = g * n + _let i = I
                                    in 62
                            in p + 44 + 70 * 21
                         _in 38 * 59 + _let d = 21 + 41
                                   _{in n + _{let c} = q + 54 + 75}
                                         _in _let b = _let w = s
                     _{in} _{let r = v}
                     _in 65 * _let c = u
                     in 77 + 36 * 86 + o
                                            _in _let j = c + 92 + u + 27
                                                _in o + 12 * b * t * _let d = _let g = _let w = _let v = i
                     in 18 * w
                                                                     in c + 49
                     in 10 + n * 35
                                                               _{in} _{let} _{j} = _{o} + _{0}
                                                                  _in g
                     tester pretty print: 58 + _let e = _let b = g * n + _let i = I
                     in 62
                    in p + 44 + 70 * 21
                    in 38 * 59 + let d = 21 + 41
                     _{in} n + _{let} c = q + 54 + 75
                     _in _let b = _let w = s
                     in let r = v
                     _in 65 * _let c = u
                    _in 77 + 36 * 86 + o
                     _{in} _{let j} = c + 92 + u + 27
                     _in o + 12 * b * t * _let d = _let g = _let w = _let v = i
                     in 18 * w
                     _in c + 49
                     _in 10 + n * 35
                    _{in} _{let j} = o + 0
                     _in g
                    libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty
                    Trying: _let t=_let o=u _in _let i=_let j=49 _in 78 _in y _in m + _let l=59 + 95 + q * z + 6 * 8 * e + 89 +
msdscript7
                     12 + 19 _in j * g * _let p=_let r=_let b=_let i=a * 1 _in p + 64 * _let j=92 _in 7 * _let v=x _in s * e * r + q
                     + 75 * 59 _in m _in v * 17 * x _in 2
                     msdscript pretty print: _let t = _let o = u
                           _in _let i = _let j = 49
                                         _in 78
                               in y
                     _in m + _let I = 59 + 95 + q * z + 6 * 8 * e + 89 + 12 + 19
                           _in j * g * _let p = _let r = _let b = _let i = a * 1
```

```
_in p + 64 * _let j = 92
_{in 7 * _{let v} = x}
_in s * e * r + q + 75 * 59
_in v * 17 * x
               in 2
tester pretty print: _let t = _let o = u
     _in _let i = _let j = 49
              _in 78
         in y
_in m + _let l = 59 + 95 + q * z + 6 * 8 * e + 89 + 12 + 19
     _in j * g * _let p = _let r = _let b = _let i = a * 1
                               _{in p + 64 * _{let j} = 92}
                                        _in 7 * _let v = x
                                              _in s * e * r + q + 75 * 59
                          _in m
                    _in v * 17 * x
              _in 2
libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty
print
Trying: s * 0 + s * o
Trying: 6 + 89 + 21 * t
Trying: 55
Trying: 42
Trying: 76 * let v= let k=7 in x in let p= let e= let l= let f=83 in c in 80 + 52 * s * 22 * let n=q *
58 in 62 + let v=10 in 13 + 3 * 54 + 47 in 75 in q+z+7*44+h*67+l*q+67*u*60+50+
_let l=67 + 80 * 64 * 41 + 29 + 67 + 73 * 68 * 55 + _let r=y _in t + _let q=53 + 17 _in 57 + j _in 47 * i
msdscript pretty print: 76 * _let v = _let k = 7
      _in x
    _in _let p = _let e = _let I = _let f = 83
                                       _in c
             _in 80 + 52 * s * 22 * _let n = q * 58
                            _in 62 + _let v = 10
                                   in 13 + 3 * 54 + 47
                                  in 75
       _in q + z + 7 * 44 + h * 67 + I * g + 67 * u * 60 + 50 + _let I = 67 + 80 * 64 * 41 + 29 + 67 + 73 *
68 * 55 + _{let} r = y
_in t + _let q = 53 + 17
_in 57 + j
                                            _in 47 * i
tester pretty print: 76 * _let v = _let k = 7
         _in x
   _in _let p = _let e = _let l = _let f = 83
                        _in c
                  _in 80 + 52 * s * 22 * _let n = q * 58
                                 _{in} 62 + _{let} v = 10
                                        _in 13 + 3 * 54 + 47
            _in 75
       _in q+z+7*44+h*67+l*g+67*u*60+50+_letl=67+80*64*41+29+67+73*
68 * 55 + _{let} r = y
```

_in t+_let q = 53 + 17 _in 57 + j
_in 47 * i
libc++abi: terminating due to uncaught exception of type std::runtime_error: different results - pretty print