

Expressions of real and int types in JJ

Real Expression Examples

```
Set rate = 8.25 -- percent

Set tax = cost * rate / 100.0
Set total = cost + tax

Set C = 5.0 / 9.0 * (F - 32.0)
Set F = 9.0 / 5.0 * C + 32.0

Set y = m * x + b -- equation of line

Set poly1 = A + B*X + C*X*X + D*X*X*X
Set poly2 = A + B * (X + C * (X + D*X))

Set circumference = 2.0 * PI * radius

Set volume = length * width * height

Set girth = length + width + height

Set radians = (PI / 180.0) * degrees

Set hypotenuse = Sqrt (x*x + y*y)

Set y = Sin (A * t + B )
```

Integer Expression Examples

```
Set count = 0

Set rate = MaxRate

Set hours = minutes / 60

Set rightDigit = intValue % 10

Set cents = pennies + 5 * nickels + 25 * quarters

Set total = secs + 60 * mins + 3600 * hours
Set total = secs + 60 * (mins + 60 * hours)

Set quotient = numerator / denominator
Set remainder = numerator % denominator

Set hour = militaryTime / 100
Set mins = militaryTime % 100
```

Mixed Expression Examples involving both reals and ints

```
Set mean = rSum / IntToReal (num) -- rSum is real sum

Set mean = IntToReal (iSum) / IntToReal (count)

Set cost = price * IntToReal (quantity)

Set round = RealToInt (realValue + 0.5)

Set kilos = (IntToReal(ounces) + IntToReal(16 * pounds))* kilosPerOunce
```