Fill in each of the following:

|  |  |  |
| --- | --- | --- |
|  | **Expression** | **Your Answer:** |
|  | 2 + 3 \* 2.0 | EXAMPLE:   * Annotated with types: 2[int] + 3[int] \* 2.0[double] * Multiplication goes first * Convert 3[int] to 3.0[double] * 2[int] + 3.0[double] \* 2.0[double] * Do the multiplication: 2[int] + 6.0[double] * Addition goes next * Convert 2[int] to 2.0[double] * 2.0[double] + 6.0[double] * Do the addition * 8.0 [double] is the final result |
|  | 2 \* 6 / 3 | * Annotated with types 2[int] \* 6[int]/3[int] * Multiplication goes first * Do the multiplication 12[int]/3[int] * Division goes next * Do the addition 4[int] * 4[int] is the final result |
|  | 20 – 6 / 2 | Annotated with types 20[int] - 6[int]/2[int]  Division goes first  Do the division 20[int]-3[int]  Subtraction goes next  Do the subtraction 17[int]  17 [int] is the final result |
|  | 43 > 20 && 20 > 10 | Annotated with types 43[int]>20[int]&&20[int]>10[int]  20[int]>10[int] goes first  Do the >  TRUE  && goes next  43[int]>20[int] goes next  Do the > TRUE  && is TRUE  TRUE is the final result |
|  | int x = 43;  int y = 20;  bool z = (x >= y && y < x); | Annotated with types bool z[bool] = (x[int]>=y[int] && y[int]<x[int])  (x[int]>=y[int]&&y[int]<x[int]) goes first  Do the ()  y[int]<x[int] goes next  20[int]<43[int] goes next  Do the < TRUE  && goes next  x[int]>=y[int] goes next  43[int]>=20[int] goes next  Do the >= TRUE  && is TRUE  Do the ()  bool z = TRUE  Assign TRUE to variable Bool z  z[bool] = TRUE is the final result |
|  | int x = 2;  int y = 2 \*x + 1; | Annotated with types int y = 2[int]\*x[int]+1[int]  Multiplications goes first  2[int]\*2[int]+1[int]  4[int]+1[int]  Addition goes next  5[int]  Assign int y to 5[int]  y = 5[int] is the final result |
|  | int x = 2;  int y = 2 \* (x + 1); | Annotated with types int y=2[int]\*(x[int]+1[int])  () goes first  (x[int]+1[int])  Addition goes next  (2[int]+1[int])  3[int]  Do the ()  2[int]\*3[int]  Multiplication goes next  2[int]\*3[int]  6[int]  Assign into y to 6[int]  y=6[int] is the final result |
|  | int x = 2;  bool z = 2 \* x >= 10; | Annotated with types int bool z = 2[int] \* x[int] >= 10[int]  PEMDAS goes first  Multiplication goes first  2[int]\*x[int]  2[int]\*2[int]  4[int]  >= goes next  4[int] >= 10  Do the >=  FALSE  bool z = FALSE  Assign FALSE to bool z  z[bool] = FALSE is the final result |

PEMDAS -> Assignment