**The Two Operation Types**

Practice Assignment

Given the following variable declarations:

**int** a=2, b=5;

**double** c=2.0, d=0.0, e=-4.0;

**boolean** f=**true**;

String g="gee", h="h";

For each variable assignment below, specify the narrowest type for the variable and the final value assigned to it:

Example:

|  |  |  |
| --- | --- | --- |
| Type | JAVA Code | Value Assigned |
| int | z=a+b; | 7 |
| double | y=a+d; | 2.0 |

Problem Set:

|  |  |  |  |
| --- | --- | --- | --- |
| Problem # | Type | JAVA Code | Value Assigned |
| 1 |  | x=a>e; |  |
| 2 |  | w=a<e && f; |  |
| 3 |  | v=d\*8; |  |
| 4 |  | u=a+a+h; |  |
| 5 |  | t=a+d+h; |  |
| 6 |  | s=a+g+b+e; |  |
| 7 |  | r=(a>d && f)+g+(a\*e); |  |
| 8 |  | q=b/a; |  |
| 9 |  | p=b/c; |  |
| 10 |  | o=a\*a/b; |  |
| 11 |  | n=a\*c/b; |  |
| 12 |  | m=(int)(a\*c)/b; |  |
| 13 |  | l=b/a==b/c; |  |
| 14 |  | k=e/a==e/c; |  |
| 15 |  | j=h+(b+c==b+a); |  |
| 16 |  | i=a+c+((b/c>b/a)+g); |  |

Answer Key:

|  |  |  |  |
| --- | --- | --- | --- |
| Problem # | Type | JAVA Code | Value Assigned |
| 1 | boolean | x=a>e; | true |
| 2 | boolean | w=a<e && f; | false |
| 3 | double | v=d\*8; | 0.0 |
| 4 | String | u=a+a+h; | 4h |
| 5 | String | t=a+d+h; | 2.0h |
| 6 | String | s=a+g+b+e; | 2gee5-4.0 |
| 7 | String | r=(a>d && f)+g+(a\*e); | truegee-8.0 |
| 8 | int | q=b/a; | 2 |
| 9 | double | p=b/c; | 2.5 |
| 10 | int | o=a\*a/b; | 0 |
| 11 | double | n=a\*c/b; | 0.8 |
| 12 | int | m=(int)(a\*c)/b; | 0 |
| 13 | boolean | l=b/a==b/c; | false |
| 14 | boolean | k=e/a==e/c; | true |
| 15 | String | j=h+(b+c==b+a); | htrue |
| 16 | String | i=a+c+((b/c>b/a)+g); | 4.0truegee |