

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