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#include <stdio.h>
#include <math.h>
int main()
{
    int a,b,ch;
    do
    {
        printf("1:addition\n2:subtraction\n3:multiplication\n4:division\n5:greatest\n6:smallest\n7:equality\n8:inequality\n9:average\n10:powers\n11:exit\nenter choice\n");
        scanf("%d",&ch);
        if(ch==11)
            break;
        printf("enter the two numbers\n");
        scanf("%d %d",&a,&b);
        switch(ch)
        {
            case 1:
                printf("sum is %d\n",a+b);
                break;

            case 2:
                printf("%d-%d is %d\n",a,b,a-b);
                printf("%d-%d is %d\n",b,a,b-a);
                break;

            case 3:
                printf("product is %d\n",a*b);
                break;

            case 4:
                printf("%d-%d is %f\n",a,b,(float)(a/b));
                printf("%d-%d is %f\n",b,a,(float)(b/a));
                break;

            case 5:
                if(a>b)
                    printf("%d is greatest\n",a);
                else if(b>a)
                    printf("%d is greatest\n",b);
                else
                    printf("they are equal\n");
        }
    } while(ch!=11);
}
```

```
41     break;
42
43     case 6:
44     if(a<b)
45         printf("%d is smallest\n",a);
46     else if(b<a)
47         printf("%d is smallest\n",b);
48     else
49         printf("they are equal\n");
50     break;
51
52     case 7:
53     if(a==b)
54         printf("they are equal\n");
55     else
56         printf("they are not equal\n");
57     break;
58
59     case 8:
60     if(a!=b)
61         printf("they are unequal\n");
62     else
63         printf("they are not unequal\n");
64     break;
65
66     case 9:
67     printf("average is %f\n",(float)((a+b)/2));
68     break;
69
70     case 10:
71     printf("%d ^ %d is %f\n",a,b,pow(a,b));
72     printf("%d ^ %d is %f\n",b,a,pow(b,a));
73     break;
74
75     case 11:
76     break;
77
78     default:
79     printf("wrong choice!\n");
```

```
80         break;
81     }
82 }
83 while(ch!=11);
84 return 0;
85 }
```