

2.

(a) not equal

```
>> A=round(10*rand(6));
>> B=round(20*rand(6))-10;
>> C=transpose(A);
>> d1=det(A);
>> d2=det(C);
>> eq=isequal(d1,d2)

eq =

    logical

     0
```

Name	Value
A	6x6 double
ans	0
B	6x6 double
C	6x6 double
d	-2.8251e+11
d1	3.7345e+04
d2	37345
eq	0

(b) not equal

```
>> C=A-B;
>> d1=det(C);
>> d2=det(A)-det(B);
>> d1==d2

ans =

    logical

     0
```

Name	Value
A	6x6 double
ans	0
B	6x6 double
C	6x6 double
d	-2.8251e+11
d1	6.1884e+04
d2	4.0261e+05

(c) is equal

```
>> A=round(10*rand(6));  
>> B=round(20*rand(6))-10;  
>> C=A*B  
  
C =  
  
    13    -80    105    -75     94    -47  
    65    -63     60   -110    106    -43  
    87    -34     18   -130    124    -51  
    71    -13    -41    -89    102     11  
    -1   -105    120    -95    113     -4  
    76    -95     59    -70    131    -95  
  
>> det(C)  
  
ans =  
  
    -7.5708e+09  
  
>> det(A)*det(B)  
  
ans =  
  
    -7.5708e+09
```

(d) is equal

```
>> C=transpose(A);  
>> D=C*B;  
>> det(D)  
  
ans =  
  
    -7.5708e+09  
  
>> det(C)*det(B)  
  
ans =  
  
    -7.5708e+09
```

(e) is equal

```
>> C=inv(A);  
>> det(C)  
  
ans =  
  
-1.2346e-04  
  
>> 1/det(A)  
  
ans =  
  
-1.2346e-04
```

(f) is equal

```
>> C=inv(B);  
>> D=A*C;  
>> det(D)  
  
ans =  
  
-0.0087  
  
>> det(A)/det(B)  
  
ans =  
  
-0.0087
```