In [1]:

```
var('a,b,c')
v_1=vector([1,a,a^3])
v_2=vector([1,b,b^3])
v_3=vector([1,c,c^3])
show(matrix([v_1,v_2,v_3]).det())
```

Out[1]:

$$-a^3 b + ab^3 + a^3 c - b^3 c - ac^3 + bc^3$$

In [2]:

```
show(factor(matrix([v_1,v_2,v_3]).det()))
```

Out[2]:

$$-(a + b + c)(a - b)(a - c)(b - c)$$

In [0]: