

```
> restart;
```

Set 3, problem 4.

```
> with(LinearAlgebra):
```

```
> a1:=<a,0,0>;
```

$$a1 := \begin{bmatrix} a \\ 0 \\ 0 \end{bmatrix}$$

```
> a2:=<a/2,a*sqrt(3)/2,0>;
```

$$a2 := \begin{bmatrix} \frac{1}{2}a \\ \frac{1}{2}a\sqrt{3} \\ 0 \end{bmatrix}$$

```
> a3:=<0,0,c>;
```

$$a3 := \begin{bmatrix} 0 \\ 0 \\ c \end{bmatrix}$$

```
> Volume:=DotProduct(a1,CrossProduct(a2,a3));
```

$$Volume := \frac{1}{2} a^2 \sqrt{3} c$$

```
> assume(a,positive);
```

```
> Volume;
```

$$\frac{1}{2} a^2 \sqrt{3} c$$

```
>
```