

## Name

reflect — calculate the reflection direction for an incident vector

## Declaration

```
genType reflect( genType I,
                  genType N );
```

```
genDType reflect( genDType I,
                  genDType N );
```

## Parameters

*I*

Specifies the incident vector.

*N*

Specifies the normal vector.

## Description

For a given incident vector *I* and surface normal *N* **reflect** returns the reflection direction calculated as  $I - 2.0 * \text{dot}(N, I) * N$ .

*N* should be normalized in order to achieve the desired result.

## Version Support

Function Name	OpenGL Shading Language Version											
	1.10	1.20	1.30	1.40	1.50	3.30	4.00	4.10	4.20	4.30	4.40	4.50
reflect (genType)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
reflect (genDType)	-	-	-	-	-	-	✓	✓	✓	✓	✓	✓

## See Also

[dot](#), [refract](#)

## Copyright

Copyright © 2011-2014 Khronos Group. This material may be distributed subject to the terms and conditions set forth in the Open Publication License, v 1.0, 8

June 1999. <http://opencontent.org/openpub/>.