

FindRoot[Cos[x] == x, {x, 0}]

{x → 0.739085}

FindRoot[e^x - 3 x² == 0, {x, 0.5}]

{x → 0.910008}

FindRoot[e^x - 3 x² == 0, {x, -1}]

{x → -0.458962}

FindRoot[e^x - 3 x² == 0, {x, 3}]

{x → 3.73308}

v = {1, -2, 3};

u = 4 **v**

{4, -8, 12}

u.v

56

Cross[**u**, **v**]

{0, 0, 0}

Cross[{**a**, **b**, **c**}, {**x**, **y**, **z**}]

{-c y + b z, c x - a z, -b x + a y}

Cross[{2, 0, 5}, {-3, 7, 1}]

{-35, -17, 14}

Norm[**u**]

4 $\sqrt{14}$

Normalize[**u**]

$\left\{ \frac{1}{\sqrt{14}}, -\sqrt{\frac{2}{7}}, \frac{3}{\sqrt{14}} \right\}$

N[%]

{0.267261, -0.534522, 0.801784}

Column[%]

0.267261

-0.534522

0.801784

```
VectorAngle[{1, 0}, {1, 1}]
```

$$\frac{\pi}{4}$$

```
VectorAngle[{2, 0, 5}, {-3, 7, 1}]
```

$$\text{ArcCos}\left[-\frac{1}{\sqrt{1711}}\right]$$

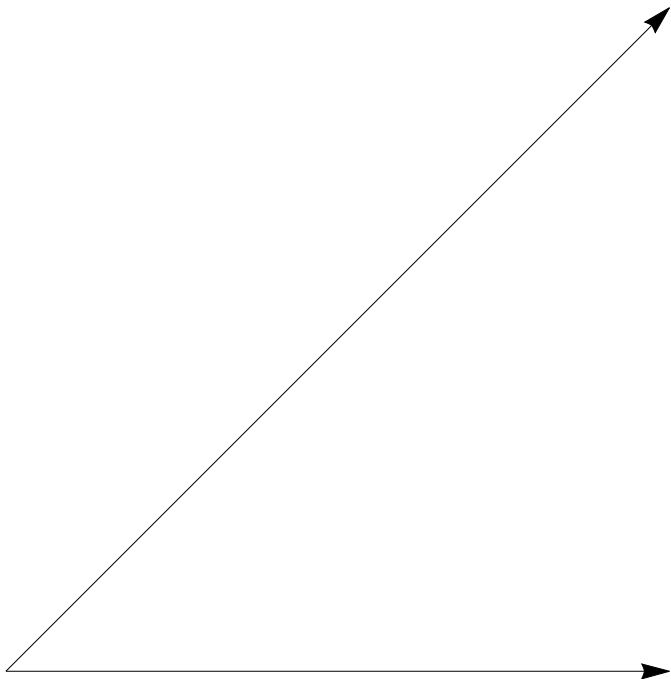
```
N[%]
```

1.59497

```
VectorAngle[{1, 0, 1}, {0, 1, 0}]
```

$$\frac{\pi}{2}$$

```
Graphics[{Arrow[{{0, 0}, {1, 0}}], Arrow[{{0, 0}, {1, 1}}]}
```



```
Graphics[{Arrow[{{0, 0}, {-1, 0}}], Arrow[{{0, 0}, {1, -1}}]}
```

