```
E^(Pi I)
```

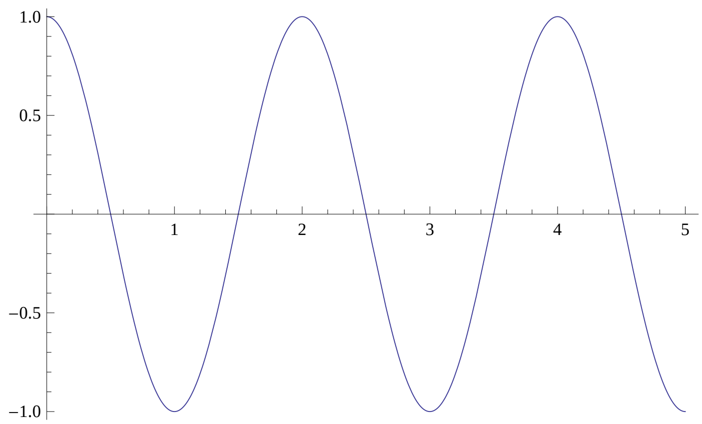
```
(-1)^a
```

$(-1)^a$

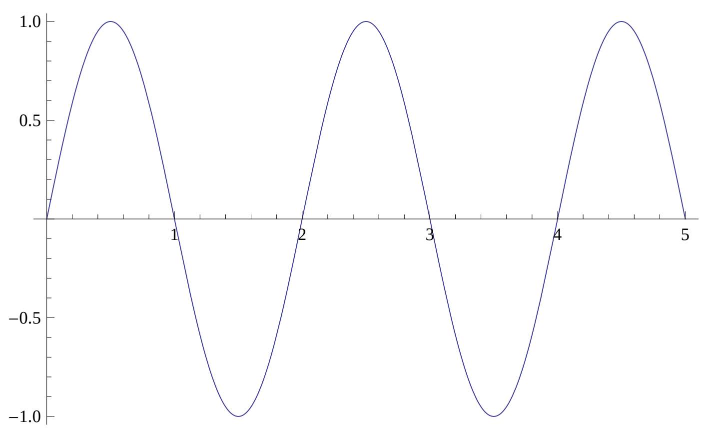
```
E^(a Log[-1])
```

$e^{i a \pi}$

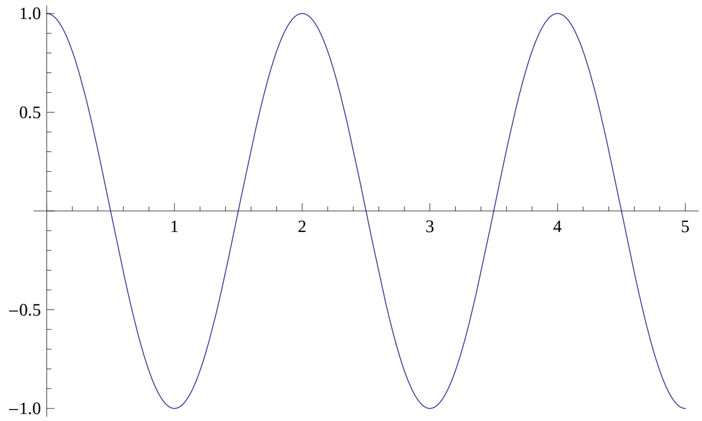
```
Plot[{Re[(-1)^a]}, {a, 0, 5}]
```



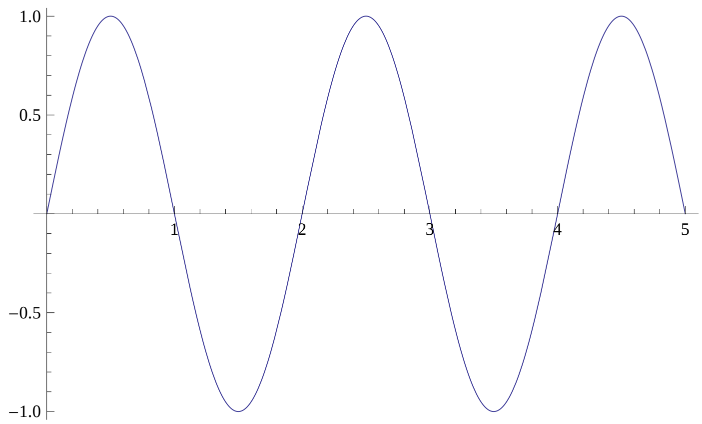

```
Plot[{Im[(-1)^a]}, {a, 0, 5}]
```



```
Plot[{ Re[E^(Pi I a)]}, {a, 0, 5}]
```




```
Plot[{Im[E^(Pi I a)]}, {a, 0, 5}]
```




```
Log[-E]
```

$1 + i\pi$

```
E^(1 + ⅈ π)
```

$-e$

```
Sum[ (-1)^(k+1) / k, {k, 1, Infinity}]
```

Log[2]

```
Sum[ (-1)^(k / 2 + 1) / k, {k, 1, Infinity}]
```

Log[1 - ⅈ]

```
Sum[ (-1)^(k / 2) / k, {k, 1, Infinity}]
```

-Log[1 - ⅈ]

```
Sum[ (-1)^(k / 2 + 2) / k, {k, 1, Infinity}]
```

-Log[1 - ⅈ]

```
Sum[ (-1)^(k / 4) / k, {k, 1, Infinity}]
```

$-\mathrm{Log}\left[1 - (-1)^{1/4}\right]$

```
Sum[ (-1)^(k / 3) / k, {k, 1, Infinity}]
```

$$\frac{i \pi}{3}$$

```
Sum[ (-1)^(k / 3 + 1) / k, {k, 1, Infinity}]
```

$$-\frac{i \pi}{3}$$

```
Sum[ (-1)^(k / 3 + 2) / k, {k, 1, Infinity}]
```

$$\frac{i \pi}{3}$$

```
Sum[ (-1)^((k + 1) / 3) / k, {k, 1, Infinity}]
```

$$\frac{1}{3} (-1)^{5/6} \pi$$

```
Sum[ (-1)^(k / 2) / (2 k - 1), {k, 1, Infinity}]
```

$$i \, \text{Hypergeometric2F1}\left[\frac{1}{2}, 1, \frac{3}{2}, i\right]$$

```
Sum[ (-1)^(k / 2) / (3 k - 1), {k, 1, Infinity}]
```

$$\frac{1}{2} i \, \text{Hypergeometric2F1}\left[\frac{2}{3}, 1, \frac{5}{3}, i\right]$$

```
Sum[ (-1)^(k / 4) / (4 k - 1), {k, 1, Infinity}]
```

$$\frac{1}{3} (-1)^{1/4} \text{Hypergeometric2F1}\left[\frac{3}{4}, 1, \frac{7}{4}, (-1)^{1/4}\right]$$

```
Sum[ (-1)^((k + 0) / 3) / ((2 k - 1)^2), {k, 1, Infinity}]
```

$$\frac{1}{12} (-1)^{1/6} \left(8 i \, \text{Catalan} + \pi^2\right)$$

```
Sum[ (-1)^((k + 1) / 3) / ((2 k - 1)^2), {k, 1, Infinity}]
```

$$\frac{1}{12} i \left(8 i \, \text{Catalan} + \pi^2\right)$$

```
Sum[ (-1)^((k + 2) / 3) / ((2 k - 1)^2), {k, 1, Infinity}]
```

$$\frac{1}{12} (-1)^{5/6} \left(8 i \, \text{Catalan} + \pi^2\right)$$

```
Sum[ (-1)^((k + 0) / 3 + 1) / ((2 k - 1)^2), {k, 1, Infinity}]
```

$$-\frac{1}{12} (-1)^{1/6} \left(8 i \, \text{Catalan} + \pi^2\right)$$

```
Sum[ (-1)^((k + 1) / 3 + 1) / ((2 k - 1)^2), {k, 1, Infinity}]
```

$$-\frac{1}{12} i \left(8 i \, \text{Catalan} + \pi^2\right)$$

```
Sum[(-1)^((k+2)/3+1)/((2k-1)^3), {k, 1, Infinity}]
```

$$\frac{1}{8}\,\text{LerchPhi}\left[(-1)^{1/3}, 3, \frac{1}{2}\right]$$

```
Sum[(-1)^(k/3)/((2k-1)^3), {k, 1, Infinity}]
```

$$\frac{1}{8}\,(-1)^{1/3}\,\text{LerchPhi}\left[(-1)^{1/3}, 3, \frac{1}{2}\right]$$

```
Sum[(-1)^((2k+1)/2)/((2k-1)^3), {k, 1, Infinity}]
```

$$-\frac{i\,\pi^3}{32}$$

```
Sum[(-1)^((2k)/2)/((2k-1)^3), {k, 1, Infinity}]
```

$$-\frac{\pi^3}{32}$$

```
Sum[(-1)^((3k+1)/2)/((3k-1)^3), {k, 1, Infinity}]
```

$$\frac{1}{27}\,\text{LerchPhi}\left[-i, 3, \frac{2}{3}\right]$$

```
Sum[E^(Pi I (2k+1)/2)/((2k-1)^3), {k, 1, Infinity}]
```

$$-\frac{i\,\pi^3}{32}$$