

## Two Slit Interference

```
val = {k → 8 π, d → 1, ω → π / 4};
```

```
wplot[t_] := DensityPlot[Evaluate[
$$\frac{1}{\sqrt{x^2 + \left(y - \frac{d}{2}\right)^2}} \text{Sin}\left[k \sqrt{x^2 + \left(y - \frac{d}{2}\right)^2} - \omega t\right] +$$

```

```

$$\frac{1}{\sqrt{x^2 + \left(y + \frac{d}{2}\right)^2}} \text{Sin}\left[k \sqrt{x^2 + \left(y + \frac{d}{2}\right)^2} - \omega t\right] /. \text{val}],$$

```

```
{x, 0, 4}, {y, -2, 2}, PlotPoints → 80, PlotRange → {-1, 1}];
```

```
Table[wplot[t], {t, 0, 7, 1}];
```

