

```
NIntegrate[Exp[-20 (3 - 5 y)^2 / (y (1 - y))] / Sqrt[y (1 - y)],  
  {y, 0.5, 1}, WorkingPrecision -> 30] / NIntegrate[  
  Exp[-20 (3 - 5 y)^2 / (y (1 - y))] / Sqrt[y (1 - y)], {y, 0, 1}, WorkingPrecision -> 30]  
0.99999999987301857052645675147
```