In[•]:=
```
ClearAll["Global`*"]
f[a_, b_] = (a * b) / (a + b);
grad = D[f[a, b], {{a, b}}];
agrad = Abs[grad];
errorAB = {da, db};
errorF = Simplify[agrad.errorAB]
a = 85;
da = 1;
b = 196;
db = 2;
F = f[a, b]
N[%]
{F - errorF, F + errorF}
N[%]
```

Out[•]=
$$db\,\text{Abs}\left[\frac{a^2}{(a+b)^2}\right] + da\,\text{Abs}\left[\frac{b^2}{(a+b)^2}\right]$$

Out[•]=
$$\frac{16660}{281}$$

Out[•]=
$$59.2883$$

Out[•]=
$$\left\{\frac{4628594}{78961}, \frac{4734326}{78961}\right\}$$

Out[•]=
$$\{58.6187, 59.9578\}$$