7.3.47 **Subtract the rational expressions.**

$$\frac{20q}{2p-2q} - \frac{8p}{2q-2p}$$

$\frac{20q}{2p-2q} - \frac{8p}{2q-2p} = \boxed{\frac{2(2p-5q)}{p-q}}$ (Simplify your answer.)

Notice that denominators are not the same!
To change $2q-2p$, factor out -1.

$$= \frac{20q}{2p-2q} - \frac{8p}{-(2p-2q)}$$

Move negative to middle — subtract becomes add

$$= \frac{20q}{2p-2q} + \frac{8p}{2p-2q}$$

Now, we have a common denominator.

$$= \frac{20q+8p}{2p-2q} \quad \leftarrow \text{add numerators}$$

Factor GCFs

$$= \frac{4(5q+2p)}{2(p-q)}$$

$(5q+2p)$ and $(p-q)$ cannot be canceled, but $\frac{4}{2}$ can be reduced.

$$= \boxed{\frac{2(5q+2p)}{(p-q)}}$$