1. $\dfrac{2p-q}{p} = \dfrac{2p}{p} - \dfrac{q}{p} = \boxed{2-\sqrt{3}}$

2. $\boxed{11.4}$

3. $\boxed{-1}$

4. $\boxed{\dfrac{89}{40}}$

5. $\boxed{\dfrac{25}{63}}$

6. Our LCD $= -2(x-3)$:

$$\begin{aligned}
\frac{3}{x-3} + \frac{5x}{6-2x} &= \frac{3}{x-3} + \frac{5x}{-2(x-3)} \\
&= \left(\frac{3}{x-3}\right) \times \left(\frac{-2}{-2}\right) + \frac{5x}{-2(x-3)} \\
&= \frac{-6}{-2(x-3)} + \frac{5x}{-2(x-3)} \\
&= \boxed{\frac{5x-6}{6-2x}}
\end{aligned}$$

7. Multiply both sides by the LCD $= 20$ to get rid of fractions:

$$\begin{aligned}
20\left(\frac{x+3}{2} - \frac{11-x}{5}\right) &= 20\left(\frac{4x+1}{20}\right) \\
20\left(\frac{x+3}{2}\right) - 20\left(\frac{11-x}{5}\right) &= 20\left(\frac{4x+1}{20}\right) \\
10(x+3) - 4(11-x) &= 4x+1 \\
10x + 30 - 44 + 4x &= 4x+1 \\
10x &= 15 \\
x &= \boxed{\frac{3}{2}}
\end{aligned}$$

8. This time our LCD $= (x-3)(4x+1)$:

$$\begin{aligned}
(x-3)(4x+1)\left(\frac{3}{x-3}-\frac{2}{4x+1}\right) &= (x-3)(4x+1)\left(\frac{1}{4x+1}\right)\\
(x-3)(4x+1)\left(\frac{3}{x-3}\right)-(x-3)(4x+1)\left(\frac{2}{4x+1}\right) &= (x-3)(4x+1)\left(\frac{1}{4x+1}\right)\\
(4x+1)(3)-(x-3)(2) &= (x-3)(1)\\
12x+3-2x+6 &= x-3\\
10x+9 &= x-3\\
9x &= -12\\
x &= \boxed{-\frac{4}{3}}
\end{aligned}$$

9. $\dfrac{1}{n}-\dfrac{1}{n(n+1)}=\left(\dfrac{1}{n}\right)\left(\dfrac{n+1}{n+1}\right)-\dfrac{1}{n(n+1)}=\dfrac{n+1}{n(n+1)}-\dfrac{1}{n(n+1)}=\dfrac{n}{n(n+1)}=\boxed{\dfrac{1}{n+1}}$

10. Our LCD $= (m+2)(2m-1)$:

$$\begin{aligned}
\frac{m}{2m-1}+\frac{m^2+12m-5}{(2m-1)(m+2)}-\frac{5}{m+2} &= \left(\frac{m+2}{m+2}\right)\left(\frac{m}{2m-1}\right)+\frac{m^2+12m-5}{(2m-1)(m+2)}-\left(\frac{2m-1}{2m-1}\right)\left(\frac{5}{m+2}\right)\\
&= \frac{m^2+2m+m^2+12m-5-10m+5}{(m+2)(2m-1)}\\
&= \frac{2m^2+4m}{(m+2)(2m-1)}\\
&= \frac{2m(m+2)}{(m+2)(2m-1)}\\
&= \boxed{\frac{2m}{2m-1}}
\end{aligned}$$