## Module 6 Group Challenge Problems

The challenge is for you to work the problem out both individually and as a group. Locate your groups question, individually work the solution, as a group decide on the best solution to present to the class, post it to the Module Challenge Problem Solutions Corner, and be ready to answer any questions that your fellow students may have about your group's challenge problem.

## Group 1 Challenge Problem:

Solve the following equation:

$$
40 a^{2}+20 a-30=(-1)\left(15 a^{3}+30\right)
$$

## Group 2 Challenge Problem:

Fully reduce the following expression:

$$
\frac{x^{3}+7 x^{2}+10 x}{x^{4}(x+2)}
$$

## Group 3 Challenge Problem:

Solve the following equation:

$$
2 b^{3}-30 b=4 b^{2}
$$

## Group 4 Challenge Problem:

Solve the following equation:

$$
\frac{c^{6}+7 c^{5}+10 c^{4}}{c^{4}(c+2)}=0
$$

