Name $\qquad$ Solutions

1) Draw the binary tree representing the expression " $3 \cdot 7+4 \cdot 6$ "

2) Write the postfix form of the expression given by your tree in the previous problem.

$$
37 \times 46 \times+
$$

3) In 2007 the Men's basketball tournament was a 65 -team single-elimination tournament. After the teams are assigned, in how many ways can the tournament unfold?

$$
2^{64}
$$

This create a full binary tree with 65 leaves (the teams). We then know there are 64 internal vertices, each one of which represents a game. A game has two choices for winner, so we multiply all 64 two's.
4) Draw all nonisomorphic rooted binary trees with 3 vertices




