

DATA DICTIONARY

NAME (final outputs)	TYPE	DESCRIPTION
userFirstName	String	Input by user
numGallons	integer	Input by user
pondVolume	float	$\text{numGallons} * 0.13368$
pondRadius	float	$\text{Math.sqrt}(\text{pondVolume} / (3.14159265 * \text{pondHeight}))$;
pondDiameter	float	$\text{pondRadius} * 2$
pondConcreteArea	float	$\text{PI} * (\text{pondRadius} * \text{pondRadius})$
domeDiameter	float	$3 * \text{pondDiameter}$
domeRadius	float	$(\text{domeDiameter} * .5)$
domeMinusPondConcreteArea	float	$\text{PI} * (\text{domeRadius squared}) - \text{pondConcreteArea}$
numSeatsWood	integer	$(\text{domeMinusPondConcreteArea} * .5) / \text{woodSeat}$
numSeatsPlastic	integer	$(\text{domeMinusPondConcreteArea} * .5) / \text{plasticSeat}$
seatChoice	integer	prompt 1 or 2
seatFinal	integer	if 1 = numSeatsWood else = numSeatsPlastic (document.write if one = wooden chair else two = plastic chair)
bidChoice	integer	1 through 6
bid1	float	$37.75 * \text{pondConcreteArea}$
bid2	float	$38.95 * \text{pondConcreteArea}$
bid3	float	$44.99 * \text{pondConcreteArea}$
bid4	float	$45.35 * \text{pondConcreteArea}$
bid5	float	$22.85 * \text{pondConcreteArea}$
pondConcreteCost	float	choice bid1 through bid5 (switch statement)

CONSTANT

pondHeight	integer	11 (feet)
woodSeat	float	5.5
plasticSeat	float	4.8

