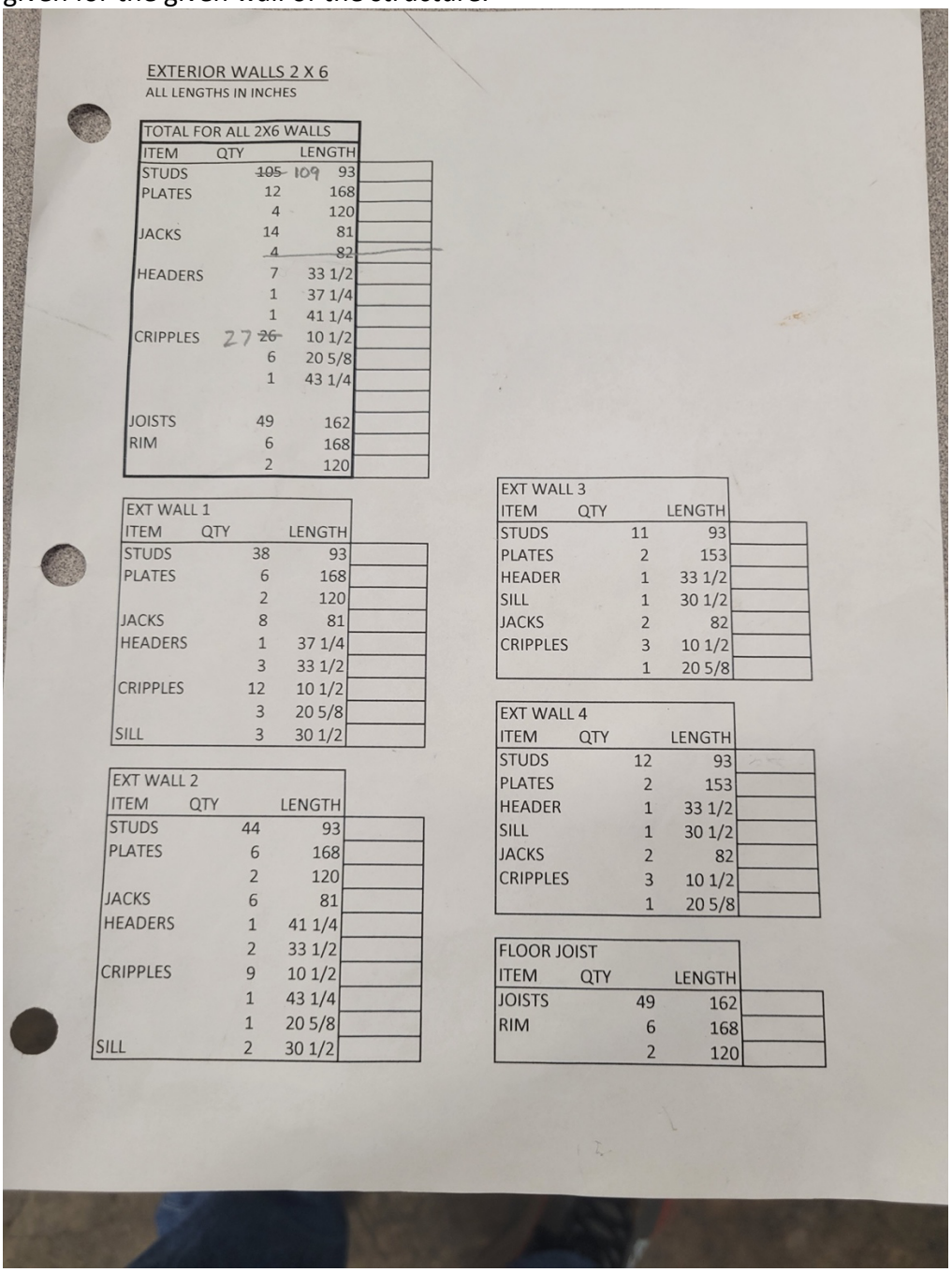
Math 85 activity Name_____

Materials estimation

In this activity, you will be computing values for how much lumber you will need to create the cut list given for the given wall of the structure.



EXTERIOR WALLS 2 X 6

ALL LENGTHS IN INCHES

TOTAL FOR ALL 2X6 WALLS

ITEM	QTY	LENGTH
STUDS	~~105~~ 109	93
PLATES	12	168
	4	120
JACKS	14	81
	~~4~~	~~82~~
HEADERS	7	33 1/2
	1	37 1/4
	1	41 1/4
CRIPPLES	27 ~~26~~	10 1/2
	6	20 5/8
	1	43 1/4
JOISTS	49	162
RIM	6	168
	2	120

EXT WALL 1

ITEM	QTY	LENGTH
STUDS	38	93
PLATES	6	168
	2	120
JACKS	8	81
HEADERS	1	37 1/4
	3	33 1/2
CRIPPLES	12	10 1/2
	3	20 5/8
SILL	3	30 1/2

EXT WALL 2

ITEM	QTY	LENGTH
STUDS	44	93
PLATES	6	168
	2	120
JACKS	6	81
HEADERS	1	41 1/4
	2	33 1/2
CRIPPLES	9	10 1/2
	1	43 1/4
	1	20 5/8
SILL	2	30 1/2

EXT WALL 3

ITEM	QTY	LENGTH
STUDS	11	93
PLATES	2	153
HEADER	1	33 1/2
SILL	1	30 1/2
JACKS	2	82
CRIPPLES	3	10 1/2
	1	20 5/8

EXT WALL 4

ITEM	QTY	LENGTH
STUDS	12	93
PLATES	2	153
HEADER	1	33 1/2
SILL	1	30 1/2
JACKS	2	82
CRIPPLES	3	10 1/2
	1	20 5/8

FLOOR JOIST

ITEM	QTY	LENGTH
JOISTS	49	162
RIM	6	168
	2	120

The length of your lumber is 14 feet. How many boards will you need for exterior wall #1? How would you cut them to minimize the waste?