N. A. A. E.	<b>5</b> .	<b>–</b> .
NAME:	Date:	Teacher:
	2 4 4 5 .	



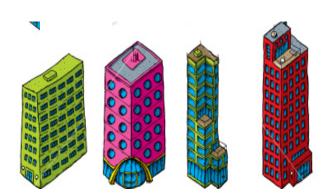
## **Construction Cost Calculation**



While it is important to keep buildings safe in an earthquake, it is also important to make them affordable. When designing a building there are several things you must remember in order to tell how much your building will cost to make:

Building Material	Cost Per Piece
Yellow Pieces	\$10
Red Pieces	\$20
Grey Pieces	\$30
Joint Pieces	\$2

- 1. Initial construction costs: how much will it cost to buy all your materials and construct your building?
- 2. Functionality: it's no use building a tower if no one is going to use it! You will be paid \$150 per floor on your tower for people renting out your space.
- 3. Damage and repair costs: in the case of an earthquake, how much will you have to pay in order to repair your structure? This we will calculate later when we come back to shake your structure.



Here is an example of how to calculate the cost of building a tower. If you had a building with 20 Reds, 4 Greys, 8 yellows, and 30 joints then the total cost of your building is:

Red Pieces	Grey Pieces	Yellow Pieces	Joints	Total
				\$400
\$20	\$30	\$10	\$2	\$120
<u>x 20</u>	<u>x 4</u>	<u>x 8</u>	<u>x 30</u>	\$80
\$400	\$120	\$80	\$60	+ \$60
,		·	·	
				\$660

Red Pieces	Grey Pieces	Yellow Piec	es Jo	oints	Total	
\$20	\$30	\$10		\$2	\$	
X	Χ	У I O	X	Ψ <u>2</u>	<b>5</b>	
					\$	
					+ \$	
er. Subtract yo	e paid! Find how mour construction coson your tower. Lookloors and your cons	ts from how m	uch you are le below for	paid to find	-	
<b>\$150</b>			¢ 750	T . 1	1	
\$150 Price per floor X 5 Number of floors			\$ 730 -\$ 660	\$ 750 Total paid -\$ 660 Total construction cos		
	\$750 How much you are paid		\$90 Total Profit			
ow you try it.						
\$150	Price per floor		\$	Total paid		
X Number of floors			_\$ Total con		truction cost	
	How much you are	e paid		Total Prof	ĭt	
d you make mo	ney or lose money	on your buildin	ng? What are	some ways	s that you co	
de your tower o	cheaper or increased	d your profit?				

NAME:\_\_\_\_\_\_ Date:\_\_\_\_\_\_ Teacher:\_\_\_\_\_