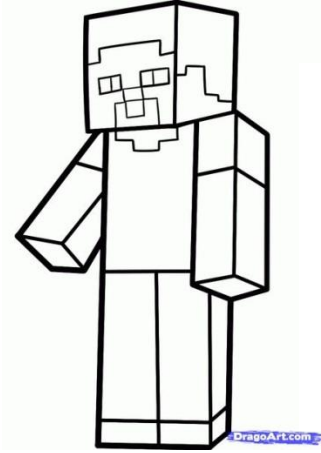


Name _____



MATH

STEP ONE: Watch the video of Steve doing the **Happy Dance**. Pay attention to what solid shapes his arms, legs, body, and head are.

1. What part of Steve's body is a cube? _____
2. What is the volume of that cube? _____ cubic units
3. What parts of Steve's body are rectangular prisms? _____
4. What is the volume of Steve's arms? _____ cubic units
5. What is Steve's **TOTAL** volume? _____ cubic units

STEP TWO: MAKING STEVE'S HEAD FROM CUBES

1. Steve's head has grown. It now has a volume of 64 cubic units. Make Steve's head!
2. What is the length, the width and the height of Steve's head? _____ units.
3. How many faces are there on Steve's head? _____
4. How many edges are there on Steve's head? _____
5. What is the area of each face? _____ square units
6. What is the perimeter of each face? _____ units

STEP THREE: MAKING STEVE'S CHEST FROM CUBES

1. Steve's chest has a new volume of 64 cubic units. Make Steve's chest!
2. What is the length of Steve's chest? _____ units
3. What is the width of Steve's chest? _____ units
4. What is the height of Steve's chest? _____ units
5. How many vertices are there on Steve's chest? _____
6. What is the area of the biggest face? _____ square units
7. What is the perimeter of the smallest face? _____ units

STEP FOUR: PUTTING IT ALL TOGETHER...TIME FOR SOME FORMULAS

1. How many **congruent faces** are on Steve's head? _____
2. What formula would we use to calculate the volume of Steve's head?
3. What shape is Steve's chest? _____
4. What formula would we use to calculate the volume of Steve's chest?
5. Which part of Steve's body is a **regular solid**? _____

STEP FIVE: CHALLENGE TIME

1. You are building a fort that has exactly 80 cubic units and is a **rectangular prism**.
Design the fort and tell what its dimension are:
Length: _____ units Width: _____ units Height: _____ units
2. You are building a fort that has exactly 125 cubic units and is a **regular solid**.
Design the fort and tell what its dimension are:
Length: _____ units Width: _____ units Height: _____ units