

Fix-a-Mix

1. Watch the Nana's Paint Mix-up video (<https://go.edc.org/fix-a-mix>), then draw a diagram and use it to figure out how to fix the paint mixture so that it has the correct ratio of 5 red to 1 white.

2. Here is a problem similar to Nana's paint:



You mixed 1 cup green paint and 3 cups white paint. Then, you found out you made a mistake. The paint mixture needs to have a ratio of 3 green cups for every 1 white cup of paint.

Draw a diagram and use it to figure out how to fix the paint mixture so that it has the correct ratio of 3 green to 1 white.

3. Here is another problem similar to Nana's paint:



You mixed 3 cups green paint and 2 cups white paint. Then, you found out you made a mistake. The paint mixture needs to have a ratio of 2 green cups for every 3 white cups of paint.

Draw a diagram to figure out how to fix the paint mixture so that it has the correct ratio of 2 green to 3 white.

4. Consider one of the following two extensions.

a. *Mathematics extension:* How can you fix the ratio of paint in one of the three fix-a-mix tasks (questions 1, 2, or 3) using *less* additional paint than you used to fix the mix originally?

b. *Visual representations in applet extension:* Explore the *Comparing Mixtures (24 cups)* applet (<https://www.geogebra.org/m/nHZZr3wd>) to see whether and how you might use it to help you solve these Fix-a-Mix tasks. This applet allows you to set up two mixtures side-by-side and explore the connections between cups of paint, various diagrams, and fraction and percent values. If you solve the task using the applet, save a screen shot of how you used the applet.