Baffling Braids

You need ☑ blue, yellow, red, and white counters

Activity One

1. Raiha and Ashleigh are going to braid each other's hair. Ashleigh chooses a pattern for her hair in which $\frac{1}{3}$ of the beads are red, $\frac{1}{6}$ are blue, $\frac{1}{6}$ are yellow, and the rest are white. She draws a picture showing what each braid would look like if she put 12 beads in it.

How many beads of each colour will there be if Ashleigh has:

a. 48 beads? b. 84 beads? c. 120 beads?

2. Raiha wants only 2 beads at the end of each of her braids. Altogether, $\frac{2}{5}$ of the beads in her hair will be red and the rest will be yellow.

How many red and yellow beads will Raiha need if she has:

a. 10 braids? b. 25 braids?

c. 40 braids? d. 75 braids?

3. Design a different braiding pattern for Ashleigh's hair. You will need to decide how many beads she will have and what proportion there will be of each coloured bead.

Activity Two

1. It usually takes Ferila 30 minutes to make 12 corn braids in Alosina's hair.

   a. How long does it take Ferila to do 1 braid?

   b. How many braids can she do in $2\frac{1}{4}$ hours?

   c. On Monday, Ferila starts braiding Alosina's hair at 6.50 p.m. Alosina has to start getting ready for bed at 8.35 p.m. How many braids will Ferila get done?

2. a. On Thursday, Alosina brings her friend Courtney home after school to have her hair braided as well. Ferila decides she needs a 10 minute rest from braiding after every 45 minutes.

   If Ferila starts braiding at 3.30 p.m., when will she stop if the girls have:

   i. 15 braids each? ii. 20 braids each?

   b. If Ferila finishes at 5.45 p.m., how many braids will each girl have?