

Linked Chains

$$\left. \begin{aligned} & \frac{5}{20} + \frac{5}{20} + \frac{5}{20} + \frac{5}{20} = \frac{20}{20} \\ & \frac{9}{20} + \frac{10}{20} + \frac{1}{20} = \frac{20}{20} \\ & \frac{10}{20} + \frac{3}{20} + \frac{4}{20} + \frac{3}{20} = \frac{20}{20} \\ & \frac{12}{20} + \frac{8}{20} = \frac{20}{20} \\ & \frac{5}{20} + \frac{4}{20} + \frac{5}{20} + \frac{3}{20} + \frac{3}{20} = \frac{20}{20} \\ & \frac{10}{20} + \frac{10}{20} = \frac{20}{20} \\ & \frac{8}{20} + \frac{2}{20} + \frac{6}{20} + \frac{4}{20} = \frac{20}{20} \end{aligned} \right\} 20 \text{ links}$$

$$\left. \begin{aligned} & \frac{8}{24} + \frac{8}{24} + \frac{8}{24} = \frac{24}{24} \\ & \frac{12}{24} + \frac{12}{24} = \frac{24}{24} \\ & \frac{2}{24} + \frac{3}{24} + \frac{4}{24} + \frac{5}{24} + \frac{8}{24} + \frac{2}{24} = \frac{24}{24} \\ & \frac{12}{24} + \frac{10}{24} + \frac{2}{24} \\ & \frac{10}{24} + \frac{10}{24} + \frac{4}{24} = \frac{24}{24} \\ & \frac{6}{24} + \frac{4}{24} + \frac{8}{24} + \frac{2}{24} + \frac{4}{24} = \frac{24}{24} \\ & \frac{8}{24} + \frac{5}{24} + \frac{9}{24} + \frac{2}{24} = \frac{24}{24} \end{aligned} \right\} 24 \text{ links}$$

$$\left. \begin{aligned} & \frac{9}{27} + \frac{9}{27} + \frac{9}{27} = \frac{27}{27} \\ & \frac{9}{27} + \frac{2}{27} + \frac{8}{27} + \frac{8}{27} = \frac{27}{27} \\ & \frac{12}{27} + \frac{12}{27} = \frac{24}{27} \\ & \frac{9}{27} + \frac{9}{27} + \frac{3}{27} + \frac{6}{27} = \frac{27}{27} \\ & \frac{9}{27} + \frac{8}{27} + \frac{10}{27} = \frac{27}{27} \\ & \frac{2}{27} + \frac{2}{27} + \frac{2}{27} + \frac{2}{27} + \frac{2}{27} + \frac{10}{27} + \frac{5}{27} + \frac{2}{27} = \frac{27}{27} \\ & \frac{8}{27} + \frac{8}{27} + \frac{8}{27} + \frac{4}{27} + \frac{5}{27} = \frac{27}{27} \end{aligned} \right\} 27 \text{ links}$$

20	24	27
2 = $\frac{2}{20}$	$\frac{2}{24}$	$\frac{2}{27}$
3 = $\frac{3}{20}$	$\frac{3}{24}$	$\frac{3}{27}$
4 = $\frac{4}{20}$	$\frac{4}{24}$	$\frac{4}{27}$
5 = $\frac{5}{20}$	$\frac{5}{24}$	$\frac{5}{27}$
6 = $\frac{6}{20}$	$\frac{6}{24}$	$\frac{6}{27}$
8 = $\frac{8}{20}$	$\frac{8}{24}$	$\frac{8}{27}$
9 = $\frac{9}{20}$	$\frac{9}{24}$	$\frac{9}{27}$
10 = $\frac{1}{2}$ or $\frac{10}{20}$	$\frac{10}{24}$	$\frac{10}{27}$
12 = $\frac{12}{20}$	$\frac{12}{24}$	$\frac{12}{27}$

$$2+8+10=20 = \frac{1}{10} + \frac{1}{10} + \frac{1}{10} =$$

$$2+8+6+4=20 = \frac{1}{10}$$

$$\frac{1}{10} +$$

$$5+5+5+5 = \frac{5}{20} + \frac{5}{20} + \frac{5}{20} + \frac{5}{20} = \frac{20}{20}$$

- 2=
- 3=
- 4= $\frac{1}{10}$
- 5= $\frac{5}{20} = \frac{1}{4}$
- 6=
- 8=
- 9=
- 10= $\frac{1}{2}$
- 12=

	20	24	27
2 =	$\frac{1}{10} \frac{2}{20}$	$\frac{2}{24}$	
3 =		$\frac{3}{24}$	$\frac{3}{27}$
4 =	$\frac{4}{20} = \frac{1}{5}$	$\frac{4}{24}$	
5 =	$\frac{5}{20} = \frac{1}{4}$		
6 =		$\frac{6}{24}$	
8 =		$\frac{8}{24}$	
9 =			$\frac{9}{27}$
10 =	$\frac{1}{2}$		
12 =		$\frac{1}{2}$	

$$10+5+5 = \frac{5}{20} + \frac{5}{20} + \frac{10}{20} = 20$$

Linked Chains

I started by trying to figure out how I could make fractions that could equal to 20, 24, 27. With my partner (Charlene) I started to make different combinations. My friend Sasha shared with me a chart which was interesting. I then improvised the chart and tried to make an easy way to create the combinations. One of my strategies was to make one combination (ex: $\frac{8}{20} + \frac{2}{20} + \frac{6}{20} + \frac{4}{20} = \frac{20}{20}$) I could then replace 8 with $4+4$, 6 with $3+3$, and 4 with $2+2$. Then repeat this with different combinations. I came up with 7 combinations for each number.