

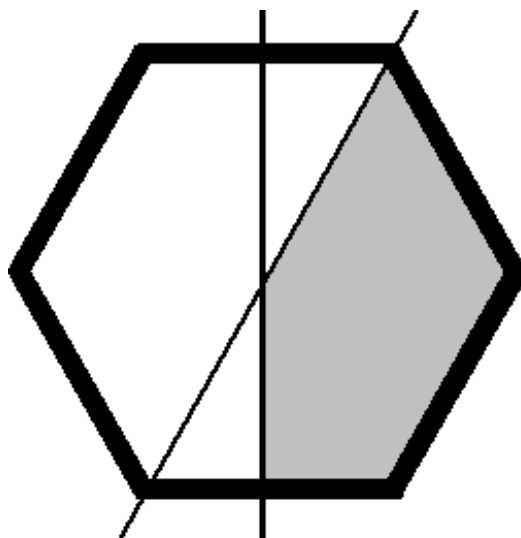
Fraction Problems

Budding Genius

1. For his party, Justin bought a Super-Duper Pizza and cut it into 24 pieces. At the party, Mary ate $\frac{1}{6}$ of the pizza, Veronica ate $\frac{1}{4}$ of it, and Ron ate $\frac{1}{3}$ of it. Justin ate the rest.

How many pieces did Justin eat?

2. A girl spent $\frac{1}{3}$ of the day sleeping, $\frac{1}{4}$ of the day at school and played for $\frac{1}{12}$ of the day. How many hours were left?
3. Ben had 7 times as many lollies as Joanna. Joanna had $\frac{3}{5}$ as many lollies as Jan. If Jan has 20 lollies, how many does Ben have?
4. What is the four digit number in which the first digit is $\frac{1}{4}$ of the last digit, the second digit is 6 times the first digit, and the third digit is the second digit plus 3?
5. What fraction of the hexagon is shaded? (Leave your answer as the simplest possible fraction.)



Genius

1. On Wednesday I ate half of a pizza. On Thursday, I ate half of what was left. On Friday I ate half of what was left from Thursday. How much was left on Saturday?
2. At a cricket match, a fifth of the spectators were in the member's enclosure, a quarter were in the public seats and the remaining 22 000 were sitting on the grass around the oval.

How many spectators were there altogether?

3. Arrange these fractions from smallest to largest.

$\frac{3}{8}$	$\frac{(3+1)}{(8+1)}$	$\frac{(3+2)}{(8+2)}$	$\frac{(3+12)}{(8+12)}$	$\frac{(3-2)}{(8-2)}$
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4. A traffic light flashes red for 50 seconds, yellow for 5 seconds, and green for 65 seconds. For what fraction of a 24-hour day is the traffic light yellow? Leave answer in lowest terms.

Super Genius

1. What number is 30 more than one quarter of itself?
2. Three equal fractions, such as $\frac{3}{6} = \frac{7}{14} = \frac{29}{58}$, use all nine digits 1, 2, 3, 4, 5, 6, 7, 8, and 9 once and only once.
Find two 2-digit numbers ab and cd so that $\frac{3}{6} = \frac{9}{18} = \frac{ab}{cd}$ also use these nine digits.
3. I cut an $8\frac{1}{2}$ by $13\frac{1}{2}$ cm sheet of paper into strips $\frac{3}{4}$ cm wide, and then place the strips end-to-end to form one long strip.

What is the longest strip that could be formed?

Mega-Genius!

1. Simplify $\frac{3}{1 + \frac{2}{2+1}}$

Fraction Problems - Answers

Budding Genius

1. 6 pieces 2. 8 hours 3. 84 lollies 4. 1694 5. $\frac{5}{12}$

Genius

1. $\frac{1}{8}$ 2. 40 000 3. $\frac{(3-2)}{(8-2)}$, $\frac{3}{8}$, $\frac{(3+1)}{(8+1)}$, $\frac{(3+2)}{(8+2)}$, $\frac{(3+12)}{(8+12)}$ 4. $\frac{1}{24}$

Super Genius

1. 40 2. $\frac{27}{54}$ 3. 153 cm

Mega-Genius

1. $\frac{9}{5}$