

Reminder: Your term paper is due on December 14.

- (1) Patty is 16 years old. Laurie is $\frac{7}{8}$ of Patty's age; Jim is $3\frac{2}{7}$ of Laurie's age; and Ed is $1\frac{1}{2}$ of Jim's age. How old is Jim?
- (2) Denny wrote the following on his arithmetic test: $\frac{16}{64} = \frac{1}{4}$. He claims that he has discovered that sixes always cancel. His teacher thinks this was just an accident.
 - (a) Find Denny an example where his method fails.
 - (b) Find a different example of one fraction where you can cancel sixes.
 - (c) Find an example of one fraction where you can cancel another number (not 6) and get an equivalent fraction.
- (3) Explain in two ways how we can solve $\frac{2}{5} \div \frac{1}{3}$.
- (4) Do these problems.

(a) $\frac{2}{5} \div \frac{3}{8}$

(b) $8 \div \frac{1}{2}$

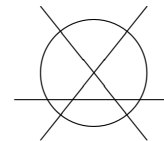
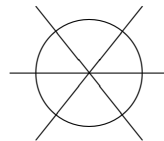
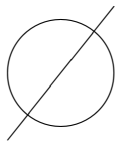
(c) $3\frac{3}{4} \div \frac{5}{2}$

(d) $\frac{7}{40} \div \frac{21}{25}$

(e) $3\frac{2}{3} \div 3$

(f) $\frac{3}{4} \div 2\frac{5}{8}$

- (5) If I cut a pancake with one straight cut, I get two pieces. With two cuts I get four pieces. With three cuts, I can get either six pieces or seven, depending how I cut.



Suppose I always want as many pieces as possible. Fill out the table below to show the most number of pieces I could get.

Cuts	1	2	3	4	5	6	7	10	100	♣
Maximum number of pieces	2	4	7							