Convert between fractions and decimals - eighths and thousandths

Use the thousand square to complete the equivalent fractions.

a) $\frac{1}{2}=\frac{500}{1000}$
b) $\frac{1}{4}=\frac{250}{1000}$
c) $\frac{1}{8}=\frac{125}{1000}$
d) Use your answer to part c) to write $\frac{1}{8}$ as a decimal.

Discuss any patterns you spot with a partner.

Complete the statements.
a) $\frac{1}{4}$ is a half of $\frac{1}{2}$ so $\frac{1}{8}$ is a half $\quad$ of $\frac{1}{4}$
b) $0.25=\frac{1}{4}$
c) $0.75=\frac{3}{4}$
$0.25=\frac{2}{8}$
$0.75=\frac{6}{8}$What fraction of the thousand square is shaded?
a)

b)


\section*{| 720 |
| :---: |
| 1000 |}

Use the thousand square to help you.

a) How many thousandths are equal to two-hundredths?
b) How many thousandths are equal to $\frac{2}{10}$ ?

5
Complete the statements
a) $\frac{300}{1000}=\frac{30}{100}=\frac{3}{10}=0.3$
b) $\frac{800}{1000}=\frac{80}{100}=\frac{8}{10}=\frac{4}{5}=0 . \underline{8}$
c) $\frac{480}{1000}=\frac{48}{100}=0 . \underline{4} \underline{8}$
e) $0.6=\frac{6}{10}=\frac{60}{100}=\frac{600}{1000}$
d) $\frac{389}{1000}=0.3 \underline{8} \underline{9}$ f) $0.67=\frac{67}{100}=\frac{670}{1000}$
(6) Annie is trying to work out $\frac{3}{8}$ as a decimal.


Explain and correct Annie's error.
It is equal to 375 thousandths which is 0.375 not 375
(7) Given that $\frac{1}{8}=0.125$, complete the table.

| Fraction | $\frac{2}{8}$ | $\frac{3}{8}$ | $\frac{5}{8}$ | $\frac{10}{8}$ | $\frac{11}{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Decimal | 0.25 | 0.375 | 0.625 | 1.25 | 1.375 |

8
Write the fractions in descending order.
$\frac{3}{5}$


## $\frac{71}{100}$

| $\frac{71}{100}$ | $\frac{5}{8}$ | $\frac{3}{5}$ | $\frac{4}{10}$ |
| :--- | :--- | :--- | :--- |

(9)

a) What is the fraction at point A?
b) Label $\frac{6}{8}$ in approximately the correct place on the number line.a) Circle all the fractions that cannot be simplified to quarters.

b) What do you notice about all of the circled fractions?

The numerations are odd

