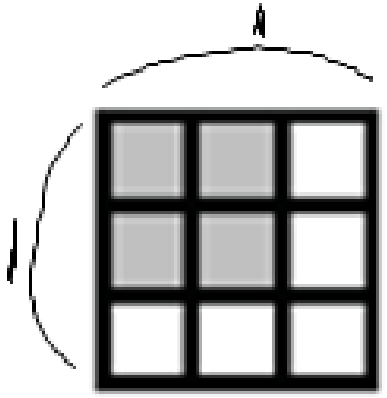


How many blocks total? 9

How many blocks shaded? 4

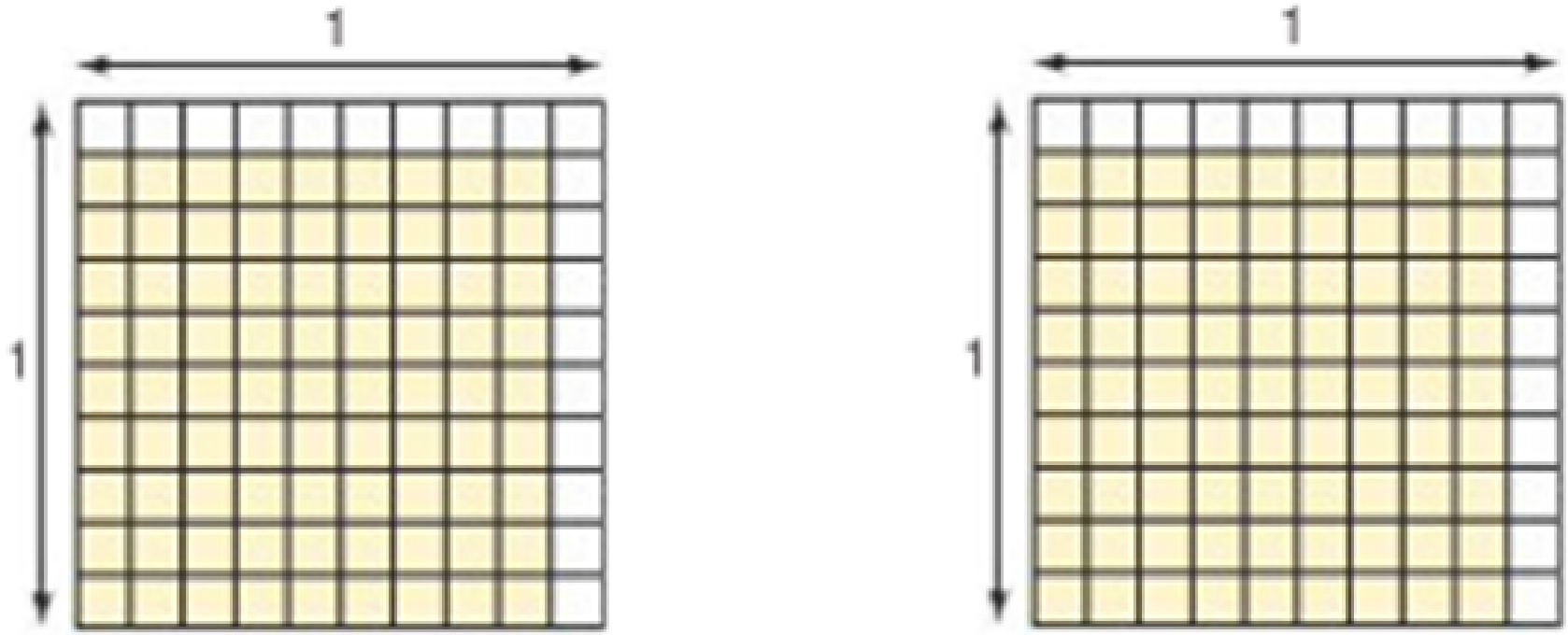
So what fraction is shaded? 4/9

THINK OF IT AS A 1X1 BLOCK THAT BROKEN INTO PIECES

WHATS THE SIDE LENGTH OF THE SHADED PART? 2/3

$\frac{2}{3} \times \frac{2}{3} = \frac{4}{9}$

$\sqrt{\frac{4}{9}} = \frac{2}{3}$



Side length shaded = $\frac{9}{10}$

$$\left(\frac{9}{10}\right)^2 = \left(\frac{9}{10}\right)\left(\frac{9}{10}\right) = \frac{81}{100} = 0.81$$

(Area)

$$\sqrt{\frac{81}{100}} = \frac{9}{10}$$

SQUARE ROOT OF A FRACTION RULE:

$$\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$$

ex. $\sqrt{\frac{16}{25}} = \frac{\sqrt{16}}{\sqrt{25}} = \frac{4}{5}$ (smaller, bigger)

ex. $\sqrt{\frac{1}{4}} = \frac{1}{2}$ (smaller, bigger)

$\sqrt{25} = 5$ (bigger, smaller)

$\sqrt{\frac{36}{16}} = \frac{6}{4} = \frac{3}{2}$ (bigger, smaller)

If the fraction is between -1 and 1
(smaller # on top)

then $\sqrt{}$ = bigger # answer

ex. $\sqrt{\frac{1}{4}} = \frac{1}{2}$ $\frac{1}{2}$ is bigger than $\frac{1}{4}$

Normally $\sqrt{}$ = smaller #

$\sqrt{0.64} = \sqrt{\frac{64}{100}} = \frac{8}{10} = 0.8$

$\sqrt{2.25} = \sqrt{\frac{225}{100}} = \frac{15}{10} = 1.5$

$\sqrt{\frac{8 \div 2}{50 \div 2}} = \sqrt{\frac{4}{25}} = \frac{2}{5}$

PERFECT SQUARES: A FRACTION CAN BE A PERFECT SQUARE IF THE TOP AND BOTTOM ARE BOTH PERFECT SQUARES

EX $\sqrt{\frac{36}{25}}$

SIMPLIFY THE FRACTION FIRST TO MAKE IT EASIER

$\sqrt{\frac{8}{50}}$

1.44

$16\frac{4}{9}$

Which of the following are perfect squares?

$\frac{50}{128}$ 6.3 $\frac{225}{139}$ 10.24 $\frac{9}{27}$

Practice Pg 11-13 # 3abc, 5abefg, 7bcefgh, 8a-f, 9bdfh, 10d, 12b, 13, 14, 18, 19