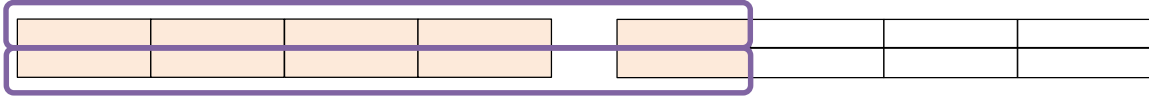


MAFS.5.NF.2.7 Number 1

1. Bullet 4: $12 \div \frac{1}{2}$

2. $\frac{5}{4} \div 2 = \frac{5}{8}$ cups

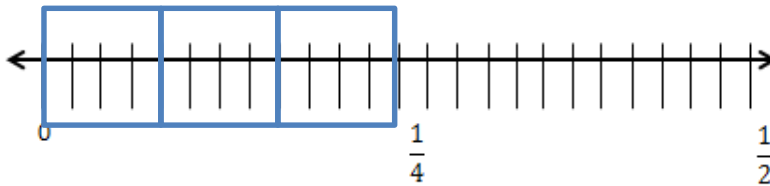


Student models may vary. An example is given.

3. 54

4.

A.



B. $\frac{1}{4} \div 3 = \frac{1}{12}$ of a pound

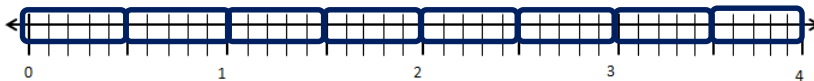
5. Both $\frac{1}{8} \div 3$ and $3 \div \frac{1}{8}$ are division problems. In $\frac{1}{8} \div 3$, there is an $\frac{1}{8}$ of something that is being dividing equally among 3 groups. The quotient of a division problem is smaller than the dividend because it has been split into equal groups or partition the dividend. $\frac{1}{8} \div 3 = \frac{1}{24}$

In $3 \div \frac{1}{8}$, the dividend is a whole number. The problem will be solved by finding the number of $\frac{1}{8}$ s in 3. This process will allow the quotient to be greater than the dividend. $3 \div \frac{1}{8} = 24$

MAFS.5.NF.2.7 Number 2

1. Bullet 2: $2 \div \frac{1}{3}$

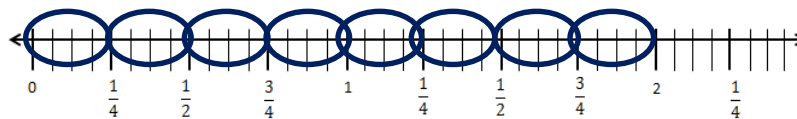
2. $4 \div \frac{1}{2} = 8$ half-hour segments



3. $\frac{1}{21}$

4. $2 \div \frac{1}{4} = 8$

A.



B. 8 containers

5. No, Megan is not correct because $\frac{1}{5} \div 7 = \frac{1}{35}$. This problem has $\frac{1}{5}$ as the dividend

and 7 as the divisor. The number of "groups" needed is 7 and the size of the groups is $\frac{1}{35}$. She can equally split $\frac{1}{5}$ into 7 groups that are $\frac{1}{35}$ in size. She could have checked her answer by multiplying her quotient by the divisor. $\frac{7}{35} \times 7 \neq \frac{1}{5}$ instead $\frac{7}{35} \times 7 = \frac{49}{35}$.
 Student explanations may vary.

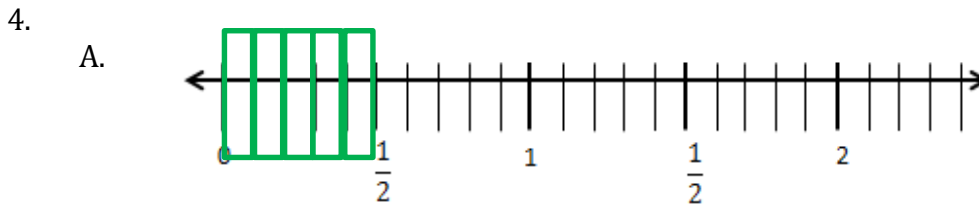
MAFS.5.NF.2.7 Number 3

1. Bullet 4: $15 \div \frac{1}{4}$

2. $\frac{1}{3} \div 5 = \frac{1}{15}$



3. $\frac{16}{5}$



B. $\frac{1}{2} \div 5 = \frac{1}{10}$

5. $\frac{1}{\square} \div 8 = \frac{1}{56}$

Dinah could solve the problem by multiplying the quotient $\frac{1}{56}$ by the divisor 8 because Dinah can use multiplication, the inverse operation of division, to check her work.

$$\frac{1}{56} \times 8 = \frac{8}{56}$$

Then she can find an equivalent fraction to $\frac{8}{56}$ with a 1 as the numerator.

$$\frac{1}{\square} = \frac{8}{56} \text{ Dinah could see that } 1 \times 8 = 8 \text{ and that } 8 \times \square = 56.$$

$$\frac{1 \times 8}{\square \times 8} = \frac{8}{56}$$

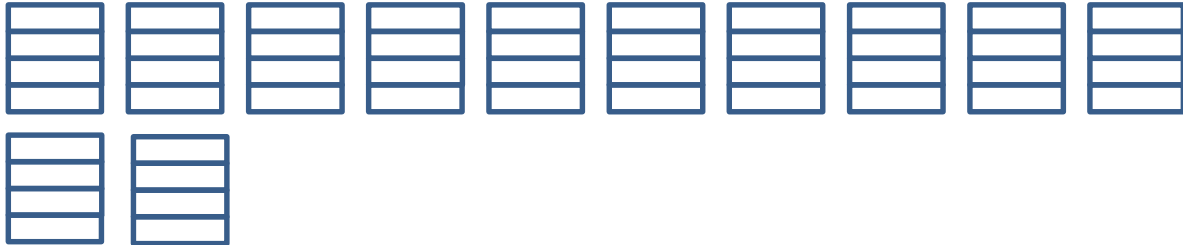
Dinah knows that $8 \times 7 = 56$, so the value of the blank is 7.

$$\frac{1}{7} \div 8 = \frac{1}{56}$$

MAFS.5.NF.2.7 Number 4

1. Bullet 2: $\frac{1}{8} \div 2$

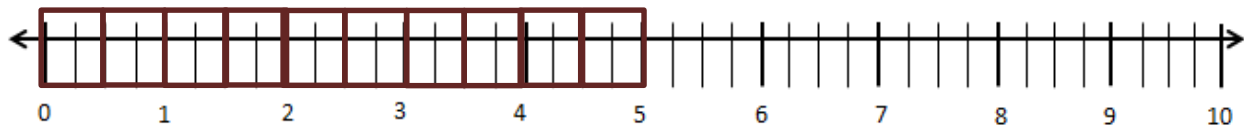
2. $12 \div \frac{1}{4} = 48$ containers



3. $\frac{1}{60}$

4. $5 \div \frac{1}{2} = 10$

A.



B. 10 brownies

5. Raven did not complete the equation correctly.

$$6 \div \frac{1}{8} = \frac{1}{48}$$

She should have completed the problem and looked to see if her answer was “reasonable.” This equation asks, “How many $\frac{1}{8}$ are in the value of 6?” She could have thought to repeatedly subtract $\frac{1}{8}$ until she has 0 as the difference and count the number of $\frac{1}{8}$ there are to identify the quotient.

$$6 - \frac{1}{8} = 5\frac{7}{8} - \frac{1}{8} = 5\frac{6}{8} - \frac{1}{8} = 5\frac{5}{8} - \frac{1}{8} = 5\frac{4}{8} - \frac{1}{8} = 5\frac{3}{8} - \frac{1}{8} = 5\frac{2}{8} - \frac{1}{8} = 5\frac{1}{8} - \frac{1}{8} = 5$$

$$5 - \frac{1}{8} = 4\frac{7}{8} - \frac{1}{8} = 4\frac{6}{8} - \frac{1}{8} = 4\frac{5}{8} - \frac{1}{8} = 4\frac{4}{8} - \frac{1}{8} = 4\frac{3}{8} - \frac{1}{8} = 4\frac{2}{8} - \frac{1}{8} = 4\frac{1}{8} - \frac{1}{8} = 4$$

$$4 - \frac{1}{8} = 3\frac{7}{8} - \frac{1}{8} = 3\frac{6}{8} - \frac{1}{8} = 3\frac{5}{8} - \frac{1}{8} = 3\frac{4}{8} - \frac{1}{8} = 3\frac{3}{8} - \frac{1}{8} = 3\frac{2}{8} - \frac{1}{8} = 3\frac{1}{8} - \frac{1}{8} = 3$$

$$3 - \frac{1}{8} = 2\frac{7}{8} - \frac{1}{8} = 2\frac{6}{8} - \frac{1}{8} = 2\frac{5}{8} - \frac{1}{8} = 2\frac{4}{8} - \frac{1}{8} = 2\frac{3}{8} - \frac{1}{8} = 2\frac{2}{8} - \frac{1}{8} = 2\frac{1}{8} - \frac{1}{8} = 2$$

$$2 - \frac{1}{8} = 1\frac{7}{8} - \frac{1}{8} = 1\frac{6}{8} - \frac{1}{8} = 1\frac{5}{8} - \frac{1}{8} = 1\frac{4}{8} - \frac{1}{8} = 1\frac{3}{8} - \frac{1}{8} = 1\frac{2}{8} - \frac{1}{8} = 1\frac{1}{8} - \frac{1}{8} = 1$$

$$1 - \frac{1}{8} = \frac{7}{8} - \frac{1}{8} = \frac{6}{8} - \frac{1}{8} = \frac{5}{8} - \frac{1}{8} = \frac{4}{8} - \frac{1}{8} = \frac{3}{8} - \frac{1}{8} = \frac{2}{8} - \frac{1}{8} = \frac{1}{8} - \frac{1}{8} = 0$$

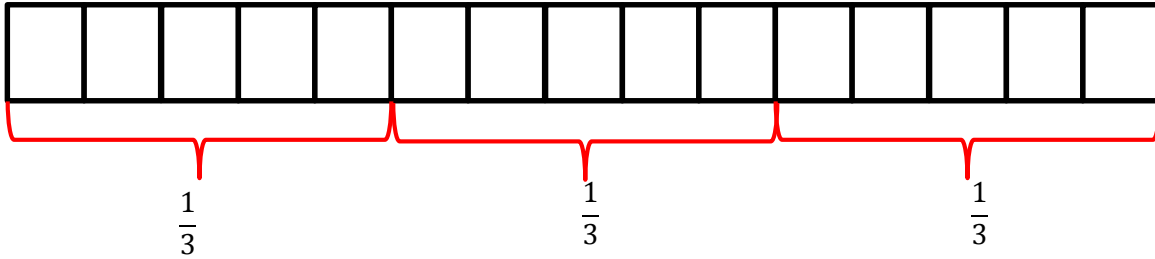
She would notice that there are $48 \cdot \frac{1}{8}$ being subtracted or 48 groups of $\frac{1}{8}$ in 6.

$$6 \div \frac{1}{8} = 48$$

MAFS.5.NF.2.7 Number 5

1. Bullet 4: $8 \div \frac{1}{4}$

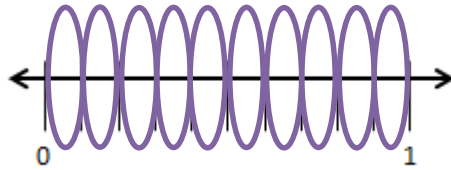
2. $15 \div \frac{1}{3} = \frac{15}{\frac{1}{3}}$ or 5 gallons



3. $\frac{1}{52}$

4.

A.



B. $1 \div \frac{1}{10} = 10$ sections of board

