

Unit 5 Ratios and Rates Review

Solve the problems below. Be sure to show your thinking.

1. Maggie is participating in her school reading challenge. She reads 40 books in six months. If 26 of the books are fiction, then what decimal represents the fraction of the 40 books are fiction?

- A. 0.23
B. 0.26
C. 0.65
D. 0.35

$$\frac{26}{40} \div 2 = \frac{13}{20} \xrightarrow{\times 5} \frac{65}{100}$$

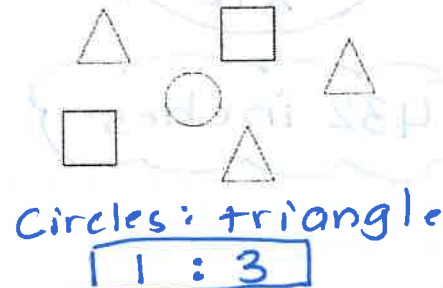
$$65\% = 0.65$$

3. Which statement best describes the table?

Days (d)	Total Laps (l)
1	18
2	36
3	54

- A. The ratio of laps to days is 1:18.
B. In 5 days, 80 laps will be completed.
C. The ratio of days to laps is 1:18.
D. In 8 days, 142 laps will be completed.

2. What is the ratio of circles to triangles? Write your ratio with a colon.



4. The students at Hunking School were selling raffle tickets to raise money for the tornado victims. The table shows the percentage of their tickets each grade level had sold. If the 6th grade had 480 tickets to sell, how many tickets had the 6th grade sold after the 1st week??

Grade	Percentage Sold After 1 st Week
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8 th	40%
7 th	45%
6 th	56%

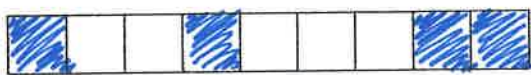
$$\frac{IS}{OF} = \frac{\%}{100}$$

$$\frac{15}{775} = \frac{56}{100}$$

$$\frac{434}{775} = \frac{14}{25} \xrightarrow{\times 31}$$

434 Tickets

5. The model below shows the ratio of gray to white squares. Which of the following is **not** an equivalent ratio of gray squares to white squares?



- A. $\frac{8}{10} \div 2 = \frac{4}{5}$
B. $\frac{24}{30} \div 6 = \frac{4}{5}$
C. $\frac{36}{48} \div 4 = \frac{9}{12}$
D. $\frac{20}{25} \div 5 = \frac{4}{5}$
- Grey : White
4 : 5

6. Northside High School is having a spaghetti dinner fundraiser. In order to advertise, students place flyers on neighborhood doors. Landon hands out 120 flyers in 2 hours. Fernando hands out 29 flyers in 30 minutes. Which equation can be used to determine f , the number of flyers Fernando handed out in two hours?

- A. $\frac{29}{30} = \frac{f}{2}$
B. $\frac{120}{f} = \frac{2}{30}$
C. $\frac{29}{2} = \frac{f}{120}$
D. $\frac{120}{30} = \frac{f}{29}$

Write your own Proportion

Set up as a proportion

7. The NFL regulation extra point is kicked 12 yards from the goal. How many inches away from the goal is the extra point kick?

$$\frac{36 \text{ inches}}{1 \text{ yd}} = \frac{\quad}{12 \text{ yds}}$$

$\times 12$

432 inches

8. A bag of movie popcorn contains 855 calories per 4.5 servings. Which of the following is an equivalent number of calories per serving?

- A. 190 calories per 2 servings
 B. 475 calories per 2.5 servings
 C. 1,235 calories per 6 servings
 D. 575 calories per 3 servings

$$\frac{855}{4.5} = 190$$

190 calories per serving.

9. Taron took a survey of his team's students and made the table below from the data.

Food	Number of Students
Turkey	30
Dressing	36
Green Beans	20
Mashed Potatoes	30
Cranberries	24

total 160

What fraction of the students preferred mashed potatoes?

- A. $\frac{1}{8}$
 B. $\frac{1}{3}$
 C. $\frac{3}{16}$
 D. $\frac{2}{5}$

$$\frac{30}{160} = \frac{3}{16}$$

10. The table shows the time Sam spent working at HEB.

Time worked (hours)	Amount Earned (dollars)
10	110.10
18	198.18
24	264.24
30	330.30

Based on the information in the table, how much will Sam earn if he works 36 hours in a week?

$$18 \text{ hrs} \times 2 = 36 \text{ hrs}$$

$$\begin{array}{r} 198.18 \\ \times 2 \\ \hline \end{array}$$

$$396.36$$

11. Look at the tables of values below.

x	2	1	3	6
y	8	4	12	24

Which set of values do NOT belong to this table?

A

x	5	9
y	20	36

) $\times 4$

C

x	25	8
y	100	32

) $\times 4$

B

x	10	11
y	40	44

) $\times 4$

D

x	35	7
y	130	28