Name: _____

2024 – 2025
Rising 7th Grade Summer Math
Packet

Directions: Show all work. Due first day of school

Week / Date	Topic	Did you check your work?
Week 1: July 1st – July 5th	Addition and Subtraction - Fractions - Decimals	____ yes ____ no
Week 2: July 8th – July 12th	Multiplication and Division - Fractions - Decimals	____ yes ____ no
Week 3: July 15th – July 19th	Fraction, Decimal, Percents Conversions	____ yes ____ no
Week 4: July 22nd – July 26th	Calculating Unit Rates	____ yes ____ no
Week 5: July 29th – August 2nd	One Step Equations	____ yes ____ no
Week 6: August 5th – 9th	Geometry - Area and Perimeter of Shapes - Triangles (angles and area)	____ yes ____ no

Adding Fractions

Show all work. Simplify if possible. Refer to the example problem to the right if necessary.

$$\frac{1}{2}+\frac{1}{3}=?$$

$$\frac{1}{2}\times\frac{3}{3}=\frac{3}{6} \qquad \frac{1}{3}\times\frac{2}{2}=\frac{2}{6}$$

$$\frac{3}{6}+\frac{2}{6}=\frac{5}{6}$$

1. $\frac{1}{2}+\frac{2}{3}=$	2. $\frac{3}{5}+\frac{1}{2}=$
3. $\frac{1}{3}+\frac{1}{10}=$	4. $\frac{9}{10}+\frac{1}{2}=$
5. $\frac{1}{3}+\frac{2}{4}=$	6. $\frac{3}{4}+\frac{1}{5}=$
7. $\frac{2}{4}+\frac{2}{5}=$	8. $\frac{3}{4}+\frac{1}{2}=$
9. $\frac{5}{10}+\frac{2}{3}=$	10. $\frac{2}{4}+\frac{1}{3}=$

Subtracting Fractions

$\frac{7}{8} - \frac{5}{16} = ?$

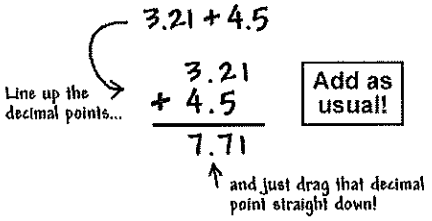
$\frac{7 \times 2}{8 \times 2} - \frac{5}{16} = \frac{14}{16} - \frac{5}{16} = \frac{9}{16}$

Show all work. Simplify if possible. Refer to the example problem to the right if necessary.

1. $\frac{3}{5} - \frac{1}{2} =$	2. $\frac{6}{10} - \frac{1}{2} =$
3. $\frac{2}{3} - \frac{1}{4} =$	4. $\frac{8}{10} - \frac{1}{4} =$
5. $\frac{1}{2} - \frac{5}{10} =$	6. $\frac{7}{10} - \frac{2}{4} =$
7. $\frac{3}{5} - \frac{1}{8} =$	8. $\frac{2}{5} - \frac{1}{10} =$
9. $\frac{1}{5} - \frac{1}{10} =$	10. $\frac{3}{4} - \frac{2}{5} =$

Adding Decimals

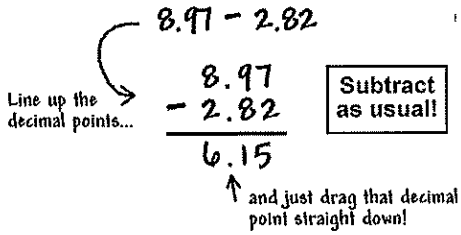
Show all work. Refer to the example problem to the right if necessary.



1. $76.79 + 82.88 =$	2. $12.21 + 9.27 =$
3. $82.73 + 44.6 =$	4. $2.99 + 9.3 =$

Subtracting Decimals

Show all work. Refer to the example problem to the right if necessary.



1. $7.63 - 3.11 =$	2. $20.34 - 4.5 =$
3. $19.342 - 17.01 =$	4. $24 - 3.145 =$

Multiplying Fractions

Show all work. Simplify if possible. Refer to the example problem to the right if necessary.

$$\frac{2}{5} \times \frac{6}{7} = \frac{2 \times 6}{5 \times 7} = \frac{12}{35}$$

$$\frac{1}{4} \times \frac{2}{3} = \frac{1 \times 2}{4 \times 3} = \frac{2}{12} = \text{reduces to } \frac{1}{6}$$

1. $\frac{7}{8} \times \frac{2}{4} =$	2. $\frac{10}{12} \times \frac{3}{4} =$
3. $\frac{8}{9} \times 5 =$	4. $\frac{2}{7} \times \frac{9}{8} =$

Dividing Fractions

Show all work. Simplify if possible. Refer to the example problem to the right if necessary.

Dividing Fractions

$$\frac{1}{3} \div \frac{3}{5}$$

Reciprocal:	Rewrite:	Multiply:
$\frac{3}{5} \times \frac{5}{3}$	$\frac{1}{3} \cdot \frac{5}{3}$	$\frac{1 \cdot 5}{3 \cdot 3} = \frac{5}{}$

1. $\frac{5}{8} \div \frac{3}{4} =$	2. $5 \div \frac{3}{4} =$
3. $\frac{4}{5} \div 8 =$	4. $\frac{2}{5} \div \frac{2}{5} =$

Multiplying Decimals

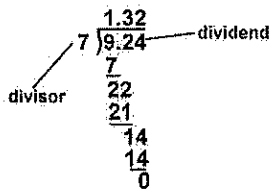
Show all work. Refer to the example problem to the right if necessary.

$3.77 \times 2.8 = ?$

$$\begin{array}{r} 3.77 \text{ (2 decimal places)} \\ \times \quad 2.8 \text{ (1 decimal place)} \\ \hline 3016 \\ +754 \\ \hline 10.556 \text{ (3 decimal places)} \end{array}$$

1. $0.5 \times 10 =$	2. $2.5 \times 0.4 =$
3. $1.25 \times 8 =$	4. $2.6 \times 1.05 =$
5. $0.38 \times 19 =$	6. $4.23 \times 12.3 =$

Dividing Decimals



Show all work. Refer to the example problem to the right if necessary.

1. $4.5 \div 2 =$	2. $3 \div 0.04 =$
3. $1.9 \div 2.3 =$	4. $10.54 \div 5 =$
5. $0.25 \div 1.4 =$	6. $9 \div 0.03 =$

Fraction, Decimal, Percent Conversions

Write each percent as a decimal. Round to the thousandths place if necessary.

1) 90%

2) 30%

3) 115.9%

4) 9%

5) 7%

6) 65%

7) 0.3%

8) 445%

Write each decimal as a percent. Round to the nearest tenth of a percent if necessary.

9) 0.452

10) 0.006

11) 0.002

12) 0.05

13) 4.78

14) 0.1

15) 3.63

16) 0.03

Write each percent as a fraction. Simplify if possible.

17) 25%

18) 70%

19) 93%

20) 58%

21) 50%

22) $66.\overline{6}\%$

23) 20%

24) 80%

25) 71%

26) 30%

Write each fraction as a percent. Use repeating decimals when necessary.

27) $\frac{1}{2}$

28) $\frac{1}{8}$

29) $\frac{2}{3}$

30) $\frac{1}{100}$

31) $2\frac{1}{10}$

32) $\frac{3}{8}$

33) $\frac{1}{10}$

34) $\frac{87}{100}$

Calculating Unit Rates

Show work on the next page!

Finding unit Rates

When the denominator of a rate is 1, we call the rate a **unit rate.** We usually use the key word **per** or the division symbol / to indicate a unit rate. For example:

If a student earns $8.50 per hour, it is the same as $8.50/hour, and means $8.50 for every 1 hour of work.

Find each unit rate. Round your answer to the nearest hundredth.

1. type 800 words in 12 minutes _____ words per minute	2. 192 students in 4 buses _____ in each bus
3. 357 miles in 5 hours _____ miles per hour	4. 8 ducks for $23.60 $_____ per duck
5. a 10-lb bag of cherries for $33.49 _____ per lb	6. 12 chickens lay 30 eggs _____eggs per chicken
7. Earn $134 in 8 hours _____ per hour	8. 3 pizzas for $19.99 _____ each
9. 3500 calories for 6 servings of pie _____ calories per serving	10. 351 chairs in 27 rows _____ chairs in each row
11. $37.29 for 2 pairs of jeans. _____ each	12. $37.29 for 2 pairs of ducks _____per duck
13. 24 senior citizens in 12 RVs _____ in each RV	14. 7 penguins for $188.88 _____ each

Which is the better buy?

15. A 12.5 oz bag of Doritos for $3.79 or a 3 oz bag for $1.00.

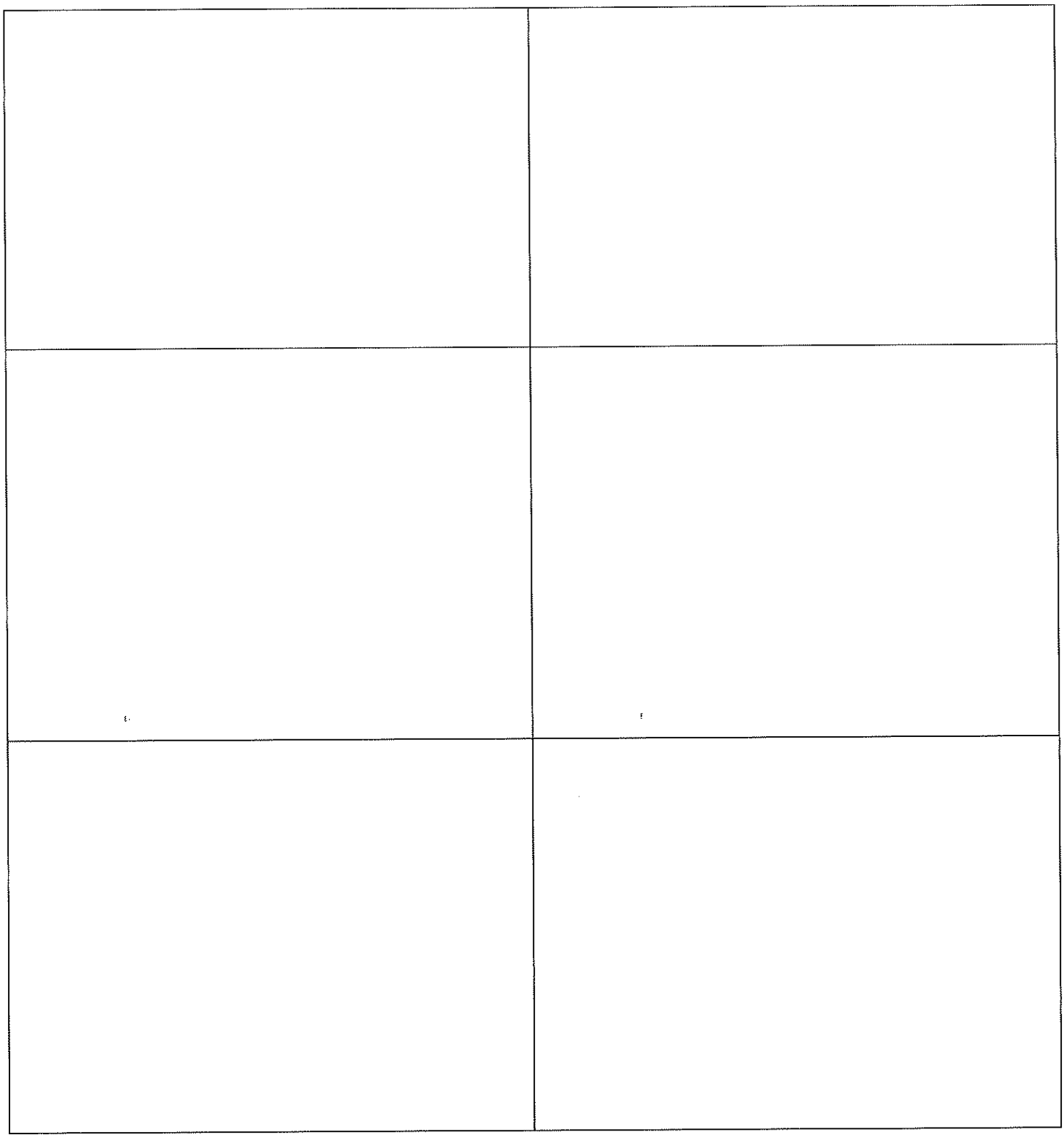
16. 12 bars of soap for $10.00 or 5 bars of soap for $4.00.

17. A box of 84 penguins for $13,597 or a bag of 50 penguins for $795.95.

18. 5 gallon bucket of paint for $97.45 of a 1 gallon bucket of paint for 21.95.

19. 48oz big gulp for $1.39 or a 32 oz coke for $.89.

20. 50 head of cattle for $24,500 or 37 head of cattle for $18,870



One Step Equations

1) $26 = 8 + v$

2) $3 + p = 8$

3) $15 + b = 23$

4) $-15 + n = -9$

5) $m + 4 = -12$

6) $x - 7 = 13$

7) $m - 9 = -13$

8) $p - 6 = -5$

11) $-104 = 8x$

12) $14b = -56$

13) $-6 = \frac{b}{18}$

14) $10n = 40$

15) $\frac{v}{8} = 2$

16) $16 = \frac{k}{11}$

17) $-15x = 0$

18) $-17x = -204$

19) $21 = -7n$

20) $\frac{m}{4} = -13$

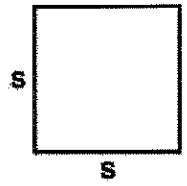
21) $-126 = 14k$

22) $-143 = -11x$

Geometry

Area and Perimeter of Shapes

1)

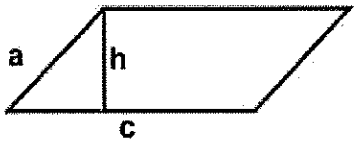


s = 58 ft

Area: _____

Perimeter: _____

2)



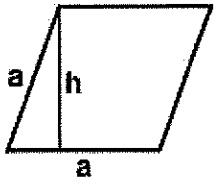
a = 44.02 mm

c = 99 mm h = 41 mm

Area: _____

Perimeter: _____

3)

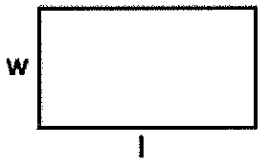


a = 61 yds h = 57.32 yds

Area: _____

Perimeter: _____

4)

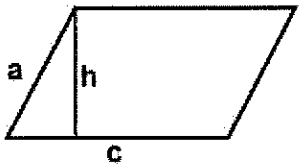


l = 89 inches w = 49 inches

Area: _____

Perimeter: _____

5)



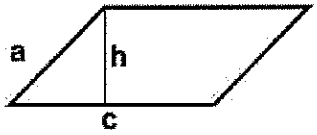
a = 55.47 cm

c = 91 cm h = 53 cm

Area: _____

Perimeter: _____

6)



a = 44.19 ft

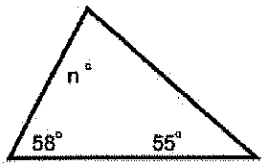
c = 84 ft h = 40 ft

Area: _____

Perimeter: _____

Solving for Missing Angles in Triangles

1. Find the value of the missing angle.

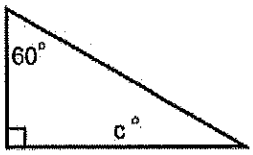


n = _____

2. Find the value of the missing angle.

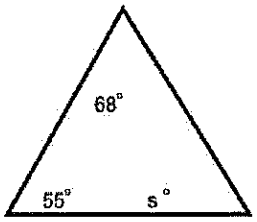
f = _____

3. Find the value of the missing angle.



c = _____

4. Find the value of the missing angle.

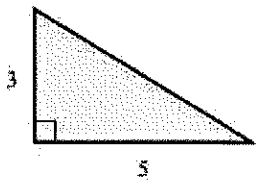


s = _____

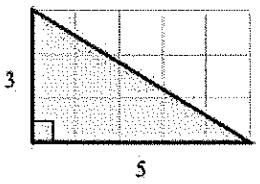
Calculating the Area of Triangles

Use the explanation below to find the areas of the following triangles.

The area of a **right** triangle is half the area of the rectangle that would surround it.



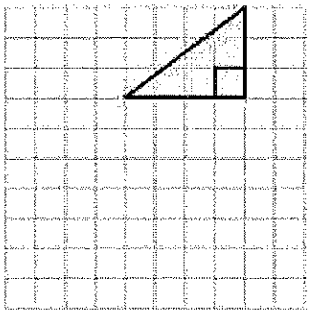
In this example, the surrounding rectangle would have an area of 15 blocks (15 b^2).



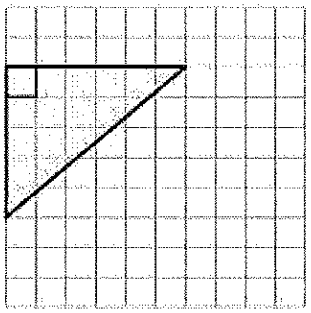
Half of 15 is 7.5
This **right** triangle has an area of 7.5 b^2.

y

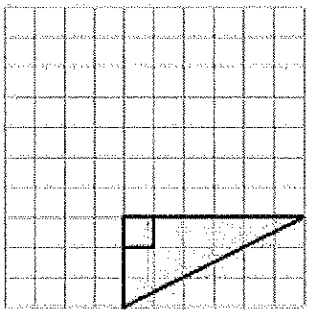
1)



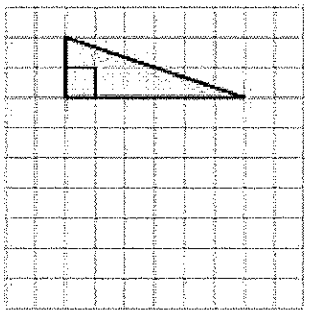
2)



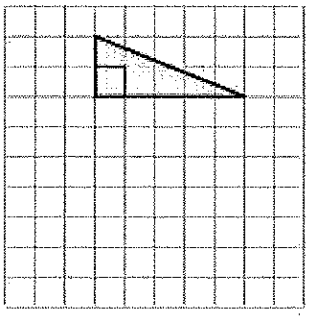
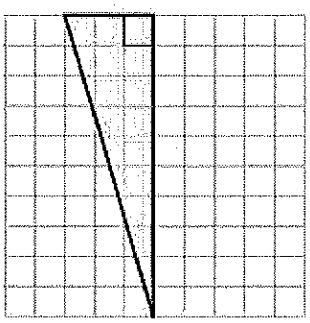
3)



4)



5)



6)