This packet contains practice problems that can be used to help you prepare for your math course in the fall.

**Top 5 Topics**
The Math 7 teachers have selected these topics as the “Top 5” to review before you begin Math 7.

1. 1-10 Multiplication and Division Facts
   (flash cards are a great resource)
2. Fraction Operations (Rational Numbers)
3. Order of Operations
4. Integer Operations
5. Solving One-Step Equations

**Other Resources**
Access videos from the following site if you need help with the content in this packet:

https://sites.google.com/fcpsschools.net/rms-math-dept-resource-site/rms-math-department?authuser=1

If you prefer, you could also use one of these workbooks. No workbook is perfectly aligned to a math course, but these will provide a variety of problems to keep your math skills sharp!

- Summer Bridge Activities, Grades 6-7, ISBN-10: 1620576139
SHOW ALL WORK WHERE POSSIBLE. There are two sections: a non-calculator and a calculator section.

DO YOU KNOW YOUR MULTIPLICATION TABLES FROM 1 - 12?

The list of websites below contains tutorials, practice, and quizzes on the topics in this packet and more!

- [http://www.math.com](http://www.math.com)
- [http://education.jlab.org/solquiz/](http://education.jlab.org/solquiz/)
**REMINDER: NO CALCULATORS, please.**

Find the answer.

- Remember that you need to have a common denominator when adding and subtracting fractions and/or mixed numbers.

1) \( \frac{5}{8} + \frac{1}{4} \)

2) \( \frac{8}{9} - \frac{5}{6} \)

3) \( \frac{8}{9} \times \frac{4}{5} \)

4) \( \frac{2}{3} \div \frac{1}{4} \)

5) Anna works in a department store and earns $7.60 per hour. Last week she worked 39.5 hours. How much money did she earn for the work?

6) Brandon spent \( \frac{1}{4} \) of his time studying math and \( \frac{1}{6} \) of his time studying history. How much of his study time did he spend studying math and history?

7) A park ranger takes a group of campers on a \( 5\frac{1}{2} \) mile hike. They have already hiked 2 and \( 1\frac{1}{3} \) miles. How far do they have yet to hike?

8) Solve using order of operations: \( 11 \div (12 - 8 \times 3) \)

9) Solve using order of operations: \( (3 + 4 \div 2) \times 5 \)
FILL IN the blanks - Equivalent Fractions, Decimals, & Percents

<table>
<thead>
<tr>
<th>Fraction</th>
<th>Decimal</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/5</td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>2/5</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.6</td>
<td>60%</td>
</tr>
<tr>
<td>4/5</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>¼</td>
<td></td>
<td>25%</td>
</tr>
<tr>
<td>2/4 or ½</td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>0.75</td>
<td>75%</td>
</tr>
</tbody>
</table>

Remember that \( \frac{1}{1} \) is 1 (which is equal to 100%)

Put the rational numbers in order from least to greatest. It would help you to put all rational numbers in the same form (decimal)

11) \( \frac{3}{2}; \frac{3}{4}; \frac{2}{5} \)

12) -1, -12, -7, -9, -3

13) 19.16, 14.9, 19.4
14 - 17) Use an integer to describe each situation.

spending $6 ____________ finding a quarter ____________

climbing up the ladder 10 feet ____ 10° below zero ____________

Use the number line to order the integers from least to greatest. Make sure you put intervals on the number line.

18) 3, -5, 4, -4, -7, 0

19) 1, 3, -7, -6, 5, -2

20 - 23) Simply each expression.

\[ (-8)(4) \quad \frac{-64}{-8} \quad (-15) + (-7) + (9) \quad 43 - (-19) \]

You can use calculators from this point forward.
Make sure you show any work that supports your knowledge of these concepts.

24) Find the mean of 59, 42, 34, 56, and 34.

25) Find the mode of 97, 82, 80, 92, 80.

26) Find the median of 19, 35, 21, 27, 20.

Find the value of the variable in each problem. Show your work.

27) \[ x + 12 = 35 \]
28) \[ y - 21 = 31 \]
29) \[ 4x = 8 \]
30) \[ y + 3 = 7 \]
Find the perimeter AND area of each shape.

31)

\[
\begin{array}{c}
\text{7cm} \\
\text{12 cm}
\end{array}
\]

\[
\text{p = 2l + 2w} \\
\text{A = lw}
\]

\[
C = 2\pi r \\
A = \pi r^2
\]

32)

\[
d = 7 \text{ in.}
\]

33) Circle all of the ratios that form a proportional relationship.

\[
\frac{4}{2} \quad \frac{20}{6} \quad \frac{3}{2} \quad \frac{18}{8} \quad \frac{4}{3} \quad \frac{8}{6} \quad \frac{6}{9} \quad \frac{2}{3}
\]
Answers:

1. \(\frac{7}{8}\)

2. \(\frac{1}{18}\)

3. \(\frac{32}{45}\)

4. \(\frac{8}{3}\) or \(2\frac{2}{3}\)

5. \(-\frac{11}{12}\)

6. 25

7. $300.20

8. \(\frac{5}{12}\)

9. \(\frac{19}{6}\) or \(3\frac{1}{6}\)

10. 

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<td>60%</td>
</tr>
<tr>
<td>4/5</td>
<td>0.8</td>
<td>80%</td>
</tr>
<tr>
<td>1/4</td>
<td>0.25</td>
<td>25%</td>
</tr>
<tr>
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<td>0.75</td>
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</tbody>
</table>

11. \(3\frac{1}{4}\); \(3\frac{2}{5}\); \(3\frac{1}{2}\)

12. -12, -9, -7, -3, -1

13. 14.9, 19.16, 19.4

14–17. -6; 25; 10; -10

18. -7, -5, -4, 0, 3, 4

19. -7, -6, -2, 1, 3, 5

20–23. -32; 8; -13; 62

24. 45

25. 80

26. 21

27. \(x = 23\)

28. \(y = 52\)

29. \(x = 2\)

30. \(y = 21\)

31. \(P = 38\) cm; \(A = 84\) cm\(^2\)

32. \(C = 21.98\) in; 153.86 in\(^2\)

33. \(\frac{4}{3}\) and \(\frac{8}{6}\); \(\frac{6}{9}\) and \(\frac{2}{3}\)