

# WAYNE TOWNSHIP PUBLIC SCHOOLS

## SUMMER MATH SKILLS REFRESHER

### FOR INCOMING

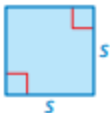
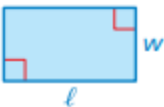
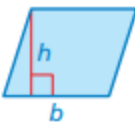
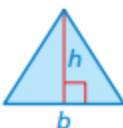
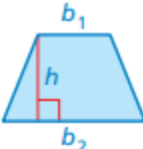
# 7TH GRADERS



#### Some tips and guidelines:

- ☐ Show all steps for all problems.
- ☐ Utilize your sixth grade enVision books, notes, and Virtual Nerd videos as needed.
- ☐ The section number is at the bottom right corner of each problem so you know where to find help.
- ☐ Simplify all fraction answers.
- ☐ Label units where necessary.
- ☐ Use the formulas below as needed.
- ☐ #1-38, 44-49: non-calculator active (only to check answers).
- ☐ #39-43, 50-60: calculator active.

#### Perimeter and Area

Square	Rectangle	Parallelogram	Triangle	Trapezoid
				
$P = 4s$ $A = s^2$	$P = 2\ell + 2w$ $A = \ell w$	$A = bh$	$A = \frac{1}{2}bh$	$A = \frac{1}{2}h(b_1 + b_2)$

**STUDENT NAME:** \_\_\_\_\_



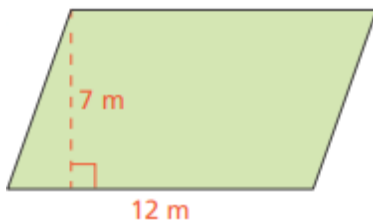
<p>11. <math>\frac{8}{9} \div \frac{3}{4}</math></p> <p>(1.5)</p>	<p>12. <math>3\frac{3}{4} \div 2</math></p> <p>(1.6)</p>
<p>13. <math>2\frac{2}{3} \div 3\frac{1}{4}</math></p> <p>(1.6)</p>	<p>14. On a recent trip, Jeremy and Frank drove 790 miles on <math>33\frac{1}{3}</math> gallons of gas. How many miles per gallon did their car get on this trip?</p> <p>(1.6)</p>
<p>15. Luisa bought <math>2\frac{1}{2}</math> pounds of apples, <math>3\frac{3}{8}</math> pounds of oranges, and <math>1\frac{1}{4}</math> pounds of pears. How many pounds of fruit did she buy in all?</p> <p>(grade 5)</p>	<p>16. Marie is creating a cross-stitch pattern with rectangles all the same size. What is the perimeter of each rectangle with sides of <math>\frac{3}{4}</math> inch and <math>\frac{2}{3}</math> inch?</p> <p>(grade 5)</p>
<p>17. Neil spends <math>1\frac{1}{4}</math> hours washing the car and <math>2\frac{5}{8}</math> hours weeding the yard. How many total hours does he spend on his chores?</p> <p>(grade 5)</p>	<p>18. Using the information from the previous problem, how much longer does Neil spend weeding than washing the car?</p> <p>(grade 5)</p>

<p>19. Find the Greatest Common Factor for 45 and 60.</p> <p>(3.2)</p>	<p>20. Find the Greatest Common Factor for 14 and 28.</p> <p>(3.2)</p>
<p>21. Find the Least Common Multiple for 3 and 4.</p> <p>(3.2)</p>	<p>22. Find the Least Common Multiple for 4 and 9.</p> <p>(3.2)</p>
<p>23. Evaluate: <math>5^2 - 9 \div 3</math></p> <p>(3.3)</p>	<p>24. Evaluate: <math>8 + 6 - 2 \times 2 - 3^2</math></p> <p>(3.3)</p>
<p>25. Evaluate: <math>4^2 \div [(3.2 \times 2) + 1.6]</math></p> <p>(3.3)</p>	<p>26. Evaluate the algebraic expression when  <math>a = \frac{1}{3}, b = 9, c = 5, d = 10</math>  <math>5d \div c + 2</math></p> <p>(3.5)</p>
<p>27. Evaluate the algebraic expression when  <math>a = \frac{1}{3}, b = 9, c = 5, d = 10</math>  <math>\frac{1}{2}d + c^2 - b</math></p> <p>(3.3)</p>	<p>28. Evaluate the algebraic expression when  <math>a = \frac{1}{3}, b = 9, c = 5, d = 10</math>  <math>12a + c - b</math></p> <p>(3.5)</p>

<p>29. Write an equivalent expression:  <math>6(8x + 1)</math></p> <p>(3.6)</p>	<p>30. Write an equivalent expression:  <math>35x + 30</math></p> <p>(3.6)</p>
<p>31. Solve the equation: <math>25 + y = 42</math></p> <p>(4.3)</p>	<p>32. Solve the equation: <math>g - 8 = 25</math></p> <p>(4.3)</p>
<p>33. Solve the equation: <math>30 = m - 18</math></p> <p>(4.3)</p>	<p>34. Solve the equation: <math>34 = 17b</math></p> <p>(4.4)</p>
<p>35. Solve the equation: <math>\frac{240}{d} = 8</math></p> <p>(4.4)</p>	<p>36. Find the unit rate for 121 meals in 11 days.</p> <p>(5.5)</p>
<p>37. Find the unit rate for 50 minutes to make 20 calls.</p> <p>(5.5)</p>	<p>38. Find the unit price of 6 goldfish for \$7.38.</p> <p>(5.6)</p>
<p>39. Find the unit rate and then determine which is the better value:  1 pound of apples for \$2.15 or  3 pounds of apples for \$5.76</p> <p>(5.6)</p>	<p>40. Find the unit rate and then determine which is the better value:  \$74 for 4 theater tickets or  \$91 for 5 theater tickets</p> <p>(5.6)</p>

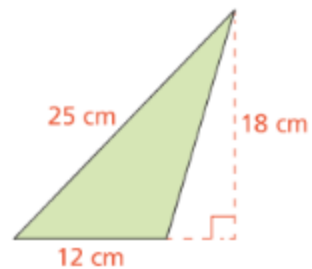
<p>41. A store sells 4 cans of beans for \$9. What is the price of 7 cans of beans?</p> <p>(5.7)</p>	<p>42. A space shuttle orbits Earth at a rate of about 4,375 miles in 15 minutes. At this rate, how far does the space shuttle travel around Earth in 1 hour?</p> <p>(5.7)</p>
<p>43. Kelly saved \$150. That is 50% of the money she earned this summer. How much did Kelly earn this summer?</p> <p>(6.1)</p>	<p>44. Write 0.24 as a simplified fraction.</p> <p>(6.2)</p>
<p>45. Write 5% as a decimal.</p> <p>(6.2)</p>	<p>46. Write <math>\frac{1}{4}</math> as a percent.</p> <p>(6.2)</p>
<p>47. Write 18% as a simplified fraction.</p> <p>(6.2)</p>	<p>48. What is 8% of 200?</p> <p>(6.5)</p>
<p>49. What percent of 28 is 7?</p> <p>(6.5)</p>	<p>50. What percent of 88 is 77?</p> <p>(6.5)</p>
<p>51. Jeb earns \$8 per hour. He gets a raise of 3.5%. How much is his raise?</p> <p>(6.5)</p>	<p>52. There are 25 acres of land on a farm. The owners planted corn on 68% of the land. On how many acres did they not plant corn?</p> <p>(6.5)</p>
<p>53. 150% of what number is 48?</p> <p>(6.6)</p>	<p>54. 300% of what number is 51?</p> <p>(6.6)</p>

55. Find the area:



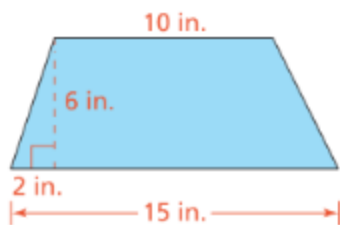
(7.1)

56. Find the area:



(7.2)

57. Find the area:



(7.3)

National Parks in Western States	
Alaska	23
Arizona	22
California	26
Colorado	13
Hawaii	7
Idaho	6
Montana	8
Nevada	3
New Mexico	13
Oregon	6
Utah	13
Washington	13
Wyoming	7

58. Find the mean.

59. Find the median.

60. Find the mode(s).

(8.2)