

Grade 8 Entry Screener 'A'

Key

<p>1. Write the value of the underlined digit in words or fraction form.</p> <p style="text-align: center;">56.9<u>7</u>4</p> <p style="text-align: center;">$\frac{7}{100}$ or 7 hundredths</p>	<p>2. Circle all the numbers that 90 is divisible by:</p> <p style="text-align: center;"> 2 3 4 5 6 8 9 10 </p> <p style="color: red; font-size: small;">(This question is intended to assess understanding of divisibility rules. As such, students should not be using long division to answer this question.)</p>
<p>3. Without calculating an answer, place the decimal point in the correct position.</p> <p style="text-align: center;">653.73 – 104.54 = 549.19</p>	<p>4. Without calculating an answer, place the decimal point in the correct position.</p> <p style="text-align: center;">417.35 ÷ 98.2 = 4.25</p>
<p>5. Write the number 52 401 056 in expanded form.</p> <p style="text-align: center;">50 000 000 + 2 000 000 + 400 000 + 1 000 + 50 + 6</p>	
<p>6. This number is in “expanded” form:</p> <p style="text-align: center;">30 000 000 + 8 000 000 + 90 000 + 5 000 + 40 + 7.</p> <p>Rewrite the number in standard form.</p> <p style="text-align: center;">38 095 047</p>	
<p>7. Write the number 45 053 220 in word form.</p> <p style="text-align: center;">Forty-five million fifty-three thousand two hundred twenty</p>	

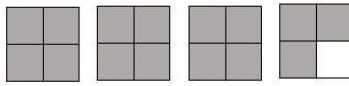
<p>8. Write the number two hundred thousand six hundred thirty-four in standard form.</p> <p style="text-align: center;">200 634</p>		
<p>9. Write 0.06 as a fraction.</p> <p style="text-align: center;">$\frac{6}{100}$</p>	<p>10. Write $\frac{3}{100}$ as a percent.</p> <p style="text-align: center;">3%</p>	
<p>11. Write 45% as a decimal.</p> <p style="text-align: center;">0.45</p>		<p>12. Write 28% as a fraction.</p> <p style="text-align: center;">$\frac{28}{100}$</p>
<p>13. Change $\frac{18}{5}$ to a mixed number.</p> <p style="text-align: center;">$3\frac{3}{5}$</p>	<p>14. Write $2\frac{3}{5}$ as an improper fraction (common fraction).</p> <p style="text-align: center;">$\frac{13}{5}$</p>	<p>15. Add:</p> $\frac{2}{9} + \frac{5}{9}$ <p style="text-align: center;">$\frac{7}{9}$</p>
<p>16. Write $\frac{8}{12}$ in lowest terms.</p> <p style="text-align: center;">$\frac{2}{3}$</p>	<p>17. Subtract</p> $\frac{3}{4} - \frac{1}{8}$ <p style="text-align: center;">$\frac{6}{8} - \frac{1}{8} = \frac{5}{8}$</p>	<p>18. Order least to greatest:</p> <p style="text-align: center;">0.64 0.8 0.259</p> <p style="text-align: center;">0.259 0.64 0.8</p>
<p>19. Write $\frac{10}{3}$ as a mixed number.</p> <p style="text-align: center;">$3\frac{1}{3}$</p>	<p>20. Write $3\frac{2}{5}$ as an improper fraction.</p> <p style="text-align: center;">$\frac{17}{5}$</p>	<p>21. Add:</p> $5\frac{1}{4} + 3\frac{1}{2}$ <p style="text-align: center;">$8\frac{3}{4}$ or $\frac{35}{4}$</p>

22. Express as a mixed Number.



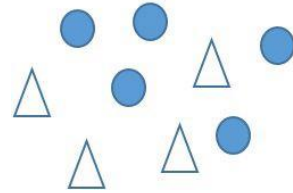
$$2\frac{3}{4}$$

23. Express as an improper fraction.



$$\frac{15}{4}$$

24. What is the ratio of triangles to circles?



$$4:5$$

25. What is being compared by the ratio 3:8?



dogs:total

26. Add:

$$(+8) + (-6) =$$

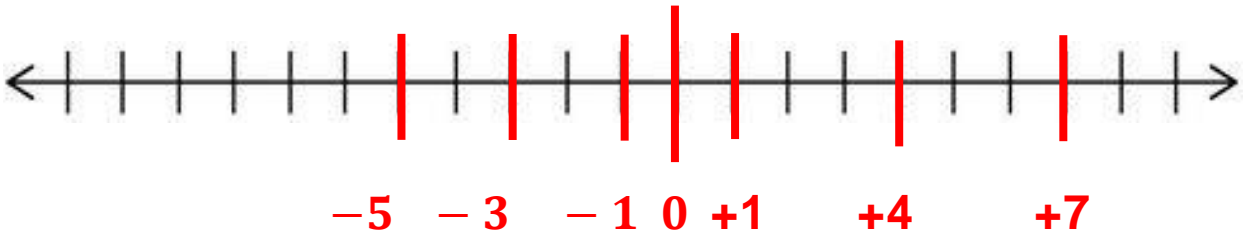
$$+2$$

27. Subtract:

$$(-5) - (-4) =$$

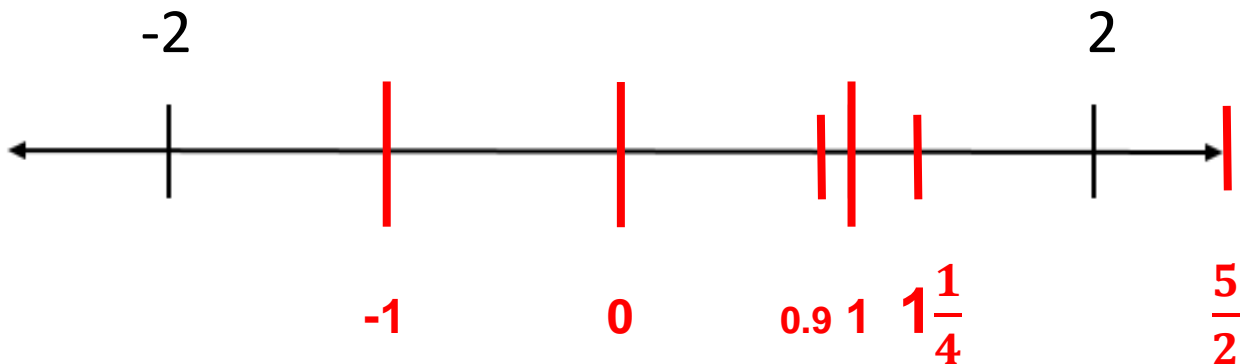
$$-1$$

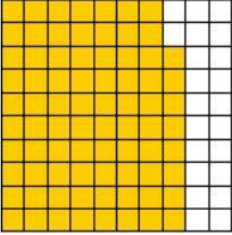
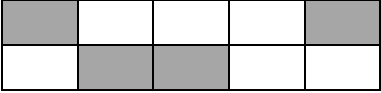
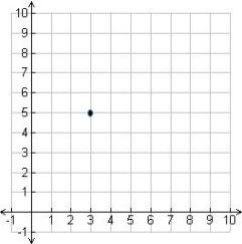
28. Place these integers on the number line: $+4, 0, -3, +7, -5, -1, +1$



29. Write the following on the number line below:

$$\frac{5}{2}, -1, 1\frac{1}{4}, 0.9, 0, 1$$



<p>30. Solve:</p> $(+6) + (-8) + (-2) = -4$	<p>31. Solve:</p> $(+5) - (-4) + (-2) = 7$											
<p>32. What percent of the diagram is shaded?</p>  <p style="text-align: center;">78%</p>	<p>33. What percent of the diagram is shaded?</p>  <p style="text-align: center;">40%</p>	<p>34. Express 0.06 as a percentage.</p> $0.06 = 6\%$										
<p>35. Multiply:</p> $0.458 \times 6 = 2.748$	<p>36. Divide:</p> $6.52 \div 4 = 1.63$	<p>37. What integer is 3 more than -5?</p> <p style="text-align: center;">-2</p>										
<p>38. What is the greatest common factor (GCF) of 16 and 24?</p> <table style="width: 100%; border: none;"> <tbody> <tr> <td style="width: 50%;">16</td> <td style="width: 50%;">24</td> </tr> <tr> <td>1×16</td> <td>1×24</td> </tr> <tr> <td>2×8</td> <td>2×12</td> </tr> <tr> <td>4×4</td> <td>3×8</td> </tr> <tr> <td></td> <td>4×6</td> </tr> </tbody> </table> <p style="text-align: center;">8</p>	16	24	1×16	1×24	2×8	2×12	4×4	3×8		4×6	<p>39. What is the least common multiple (LCM) of 9 and 12?</p> <p>9, 18, 26, 36 12, 24, 36</p> <p style="text-align: center;">36</p>	<p>40. Circle the prime number.</p> <p style="text-align: center;">18, 15, 17</p>
16	24											
1×16	1×24											
2×8	2×12											
4×4	3×8											
	4×6											
<p>41. Solve (Use order of operations.)</p> $5 \times 3 + 12 \div 2 =$ $15 + 6 =$ 21	<p>42. Solve (Use order of operations.)</p> $20 - 6(2) \div 4 + 7 =$ $20 - 12 \div 4 + 7 =$ $20 - 3 + 7 =$ $17 + 7 =$ 24	<p>43. What are the coordinates of the point?</p>  <p style="text-align: center;">(3, 5)</p>										

44. What is the pattern rule?

Write an expression to represent the pattern.

Input	Output
1	2
2	5
3	8
4	11

multiply by 3, subtract 1
 $3n - 1$

45. Fill in the table for
 $y = 2x + 3$

x	y
1	5
2	7
3	9
4	11

46. Fill in the table for
 $y = 2x - 1$

x	y
1	1
3	5
5	9
10	19

47. Write an expression for "three times a number minus four"

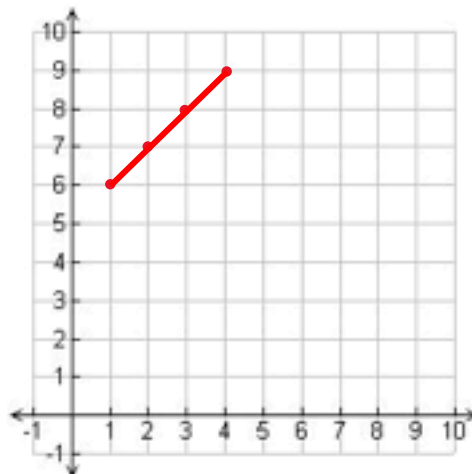
$3n - 4$

48. Write an equation for the statement "four times a number equals 20."

$4n = 20$

49. Draw the graph using the table of values:

x	y
1	6
2	7
3	8
4	9



50. Solve

$$w - 25 = 34$$

$w = 59$

51. Solve

$$16 = 3x + 4$$

$12 = 3x$

$4 = x$

52. Solve

$$\frac{3x}{2} - 4 = 5$$

$$\frac{3x}{2} = 9$$

$$3x = 18$$

$$x = 6$$

53. Solve

$$a + 4 = -10$$

$$a = -14$$