

**Accelerated Math 7 Chapter 7 Practice Test 2024**

<p>1. Which expression is equivalent to <math>4(15 - 7)</math>?</p> <p>A. <math>(15 + 4) - (7 + 4)</math>                      C. <math>15(4) - 7(4)</math>            B. <math>(15 - 7) + (15 - 4)</math>                      D. <math>4(15) + 4(7)</math></p>	<p>1. C</p>
<p>2. Which of the following expressions can be written as <math>10(x - y)</math>?</p> <p>A. <math>10x \cdot 10y</math>                                  C. <math>10x \cdot (-y)</math>            B. <math>10xy - 10yx</math>                                  D. <math>10x - 10y</math></p>	<p>2. D</p>
<p>3. On a school trip to the space museum, 30 students visited the astronaut exhibit. Tickets for admission cost \$18. Which expression can be used to mentally compute the total cost of admission tickets?</p> <p>A. <math>30(10 + 8)</math>                                  C. <math>15(2 + 8)</math>            B. <math>15 \cdot 2 + 10 \cdot 8</math>                                  D. <math>30(10 - 8)</math></p>	<p>3. A</p>
<p>4. Identify the like terms in the expression <math>7x + 4y + 3y + 7</math>.  <i>CAN BE COMBINED</i>      <math>= 7x + 7y + 7</math>  <math>7(x + y + 1)</math></p>	<p>4. 4y and 3y</p>
<p>5. The area of a triangle can be determined by <math>\frac{1}{2}bh</math>, where <math>b</math> is the length of the base and <math>h</math> is the height. What is the coefficient in the expression <math>\frac{1}{2}bh</math>?</p>	<p>5. <math>\frac{1}{2}</math></p>
<p>6. Which of the following expressions correctly combines like terms?</p> <p>A. <math>4x + 7 + 2x - 4y = 6x + 3y</math>            B. <math>2x + 7y + 2x - 4y = 4x + 3y</math>            C. <math>2x + 7y + 2x - 4 = 4x + 3y</math>            D. <math>4x + 7y + 2x + 4y = 6x + 3y</math></p>	<p>6. B</p>
<p>7. Mateo and Haley both collect coins. Mateo has 8 more coins in her collection than Haley. Which expression represents the total number of coins in both collections?</p> <p>A. <math>2c + 8</math>      B. <math>c + 8</math>      C. <math>2c(8)</math>      D. <math>8 - 2c</math>  <i>H = 10      M = 18      28 COINS</i></p>	<p>7. HALEY C      A            MATEO C+8</p>
<p>8. Bradley rents a fishing boat for the day. The total cost for gasoline is represented by the expression <math>3.25m + 15</math>. <u>What is the constant</u> in the expression?</p>	<p>8. 15</p>
<p>9. What is the GCF of <math>100xyz</math> and <math>25xz</math>?  <math>\uparrow\uparrow</math>      <math>\uparrow\uparrow</math>      <math>\frac{25}{1 \cdot 25}</math>      <math>\frac{100}{4 \cdot 25}</math></p>	<p>9. 25xz</p>

<p>10. A triangle has side lengths of <math>(4x - 10)</math> units, <math>(2x + 6)</math> units, and <math>5x</math> units. Which expression represents the perimeter of the triangle?</p> <p>A. <math>(11x + 16)</math> units  B. <math>(6x - 4 + 5)</math> units  C. <math>(11x - 4)</math> units  D. <math>(14x + 8x + 5x)</math> units</p> <p><math display="block">\begin{array}{r} 4x \\ + 2x \\ + 5x \\ \hline 11x \end{array}</math></p> <p><math display="block">\begin{array}{r} -10 \\ + 6 \\ + 0 \\ \hline -4 \end{array}</math></p> <p><math display="block">\begin{array}{c} 5x \\ \triangle \\ 4x-10 \end{array}</math></p> <p><math display="block">\begin{array}{c} 2x+6 \\ \triangle \\ 4x-10 \end{array}</math></p>	<p>10.</p> <p>C</p>								
<p>11. The expression <math>(2.2x + 8)</math> represents the number of miles Trent jogged during a race, and <math>5x</math> represents the number of miles that Ling jogged during the same race, in <math>x</math> hours. Write an expression to show how many more miles Ling jogged than Trent.</p> <p><math display="block">\begin{array}{r} 5x+0 \\ - (2.2x+8) \\ \hline 2.8x-8 \end{array}</math></p> <p>LING - TRENT</p>	<p>11.</p> <p><math>2.8x - 8</math> ✓  OR  <math>2.8x + -8</math> ✓</p>								
<p>12. Rewrite the following expression using the Distributive Property.</p> <p><math>13x(-16) + 14 \cdot 16</math></p> <p><math display="block">\frac{-16}{16} = -1</math></p> <p><math display="block">-208x + 224</math></p> <p><math display="block">\frac{16}{16} = 1</math></p>	<p>12.</p> <p><math>16(-13x + 14)</math></p>								
<p>13. The width of a rectangle is <math>4x</math> units and its length is <math>(6x - 2)</math> units. What happens to the area of the rectangle if the length is doubled?</p> <p><math display="block">2 \begin{array}{ c } \hline 5 \\ \hline 10 \\ \hline \end{array}</math></p> <p><math display="block">2 \begin{array}{ c } \hline 10 \\ \hline 20 \\ \hline \end{array}</math></p>	<p>13. DOUBLE LENGTH = DOUBLE AREA</p>								
<p>14. Write an expression in factored form that is equivalent to the expression <math>\frac{3}{4}x + 24</math>.</p> <p><math display="block">\frac{24}{\frac{3}{4}} = \frac{24 \cdot 4}{3} = 32</math></p> <p><math>12x + 4 = 4(3x + 1)</math></p>	<p>14.</p> <p><math>\frac{3}{4}(x + 32)</math></p>								
<p>An animal hospital provides aid to sick and injured sea turtles. The cost of visiting the hospital for <math>x</math> number of visitors is shown in the table.</p> <table border="1" data-bbox="430 1060 803 1249"> <thead> <tr> <th colspan="2">Admission Cost</th> </tr> <tr> <th>Admission Ticket</th> <th>Cost (\$)</th> </tr> </thead> <tbody> <tr> <td>weekday</td> <td><math>7.50x + 5</math></td> </tr> <tr> <td>weekend</td> <td><math>15x + 10</math></td> </tr> </tbody> </table> <p><math display="block">\frac{22.5}{7.5} = 3</math></p> <p><math display="block">\frac{15}{7.5} = 2</math></p> <p><math>22.5x + 15</math></p> <p>15. Write an expression in factored form that is equivalent to the sum of weekday and weekend tickets.</p> <p>16. Write an expression to show how much greater the cost is for a weekend ticket than a weekday ticket.</p>	Admission Cost		Admission Ticket	Cost (\$)	weekday	$7.50x + 5$	weekend	$15x + 10$	<p>15.</p> <p><math>7.5(3x + 2)</math></p> <p>16.</p> <p><math>7.5x + 5</math></p>
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<p>17. The perimeter of a square-shaped garden is <math>(12x + 20)</math> feet. Write an expression to represent the length of one side of the garden.</p> <p><math display="block">4(3x + 5)</math></p> <p><math display="block">\begin{array}{c} 3x+5 \\ \square \\ 3x+5 \end{array}</math></p>	<p>17.</p> <p><math>3x + 5</math></p>								
<p>18. Which expression in factored form is equivalent to <math>\frac{1}{5}x + 10</math>?</p> <p>A. <math>\frac{1}{5}(x + 50)</math>  B. <math>5(x - 10)</math>  C. <math>\frac{1}{5}(10x + 50)</math>  D. <math>5(10x - 5)</math></p>	<p>18.</p> <p>A</p>								