

Name _____

Grade 9 Applied Diagnostic: Number Sense and Numeration Strand

Multiple Choice: (Circle the correct answer.)

<p>1. Another way to write 2^4 is...</p> <p>a) $2 \times 2 \times 2 \times 2$</p> <p>b) 2×4</p> <p>c) 4×4</p> <p>d) $2 + 2 + 2 + 2$</p>	<p>2. Evaluate: $5 - (-8)$</p> <p>e) 40</p> <p>f) -3</p> <p>g) 13</p> <p>h) -13</p>
<p>3. Evaluate: $(-2)(-3)$</p> <p>a) -5</p> <p>b) 6</p> <p>c) -6</p> <p>d) -1</p>	<p>4. Evaluate: $(-24) \div 8$</p> <p>e) 3</p> <p>f) -16</p> <p>g) -3</p> <p>h) -0.333</p>
<p>5. Which of the following numbers is largest?</p> <p>a) $\frac{1}{5}$</p> <p>b) 0.5</p> <p>c) -0.5</p> <p>d) 0.050</p>	<p>6. What is another way to write 75%?</p> <p>e) $\frac{3}{4}$</p> <p>f) 0.75</p> <p>g) $\frac{75}{100}$</p> <p>h) All of the above are ways to write 75%.</p>
<p>7. Evaluate: $\frac{5}{10} - \frac{2}{10}$</p> <p>a) $\frac{7}{10}$</p> <p>b) 3</p> <p>c) $\frac{7}{20}$</p> <p>d) $\frac{3}{10}$</p>	<p>8. Reduce $\frac{12}{18}$ to lowest terms.</p> <p>e) $\frac{2}{3}$</p> <p>f) $\frac{6}{9}$</p> <p>g) $\frac{4}{6}$</p> <p>h) 0.6</p>

Short Answer: Answer the questions in the space provided. Show your work!

<p>9. Evaluate: $3 \times 2 + 8 \div 4$</p>	<p>10. Evaluate: $3(4 - 2)^4 + 5$</p>
<p>11. You score $\frac{29}{30}$ on a test. What is your percentage?</p>	<p>12. Evaluate: $\frac{3}{8} - \frac{1}{2}$</p>
<p>13. The ratio of gravel to dirt in concrete is 2 to 3. How much gravel is needed if 15 bags of dirt are used?</p>	<p>14. The following Pythagorean Theorem question was left unfinished. What is the last step?</p> $\begin{aligned}4^2 + 3^2 &= h^2 \\16 + 9 &= h^2 \\25 &= h^2\end{aligned}$

15. Skateboard shoes regularly cost \$140. They are on sale for 15% off of the regular price.

a) How much money will be saved?

b) What is the sale price, before tax?

16. You get paid \$58.50 for 6 hours of work.

a) What is your hourly wage?

b) How much would you get paid if you worked for 9 hours?



You're done! Sit back and relax!