

Pre-Algebra—2nd 9 Weeks Test Review

List all the factors of the number.

- _____ 1. 124
 a. 1, 2, 4, 6, 8, 15, 21, 31, 62, 124
 b. 1, 2, 62, 124
 c. 2, 4, 31, 62
 d. 1, 2, 4, 31, 62, 124

- _____ 2. Evaluate $x^3 - y^0$ if $x = 3$ and $y = 8$.
 a. 26
 b. 8
 c. 27
 d. 19

Find the GCF of the set of numbers or monomials.

- _____ 3. 28, 48
 a. 2
 b. 8
 c. 12
 d. 4

Simplify the fraction. If the fraction is already in simplest form, choose simplified.

- _____ 4. $\frac{16}{22}$
 a. simplified
 b. $\frac{9}{11}$
 c. $\frac{8}{11}$
 d. $\frac{4}{11}$

Find the product or quotient. Express using exponents.

- _____ 5. $t^7 \cdot t^8$
 a. t^{56}
 b. $(2t)^{15}$
 c. t^1
 d. t^{15}

- _____ 6. $\frac{(-9)^{10}}{(-9)^3}$
 a. $(-9)^{13}$
 b. $(-9)^7$
 c. 1
 d. 81^7

- _____ 7. Express 2.12×10^{-4} in standard form.
 a. 0.0000212
 b. 2120
 c. 0.000212
 d. 21,200

- _____ 8. Express 8,000,000,000 in scientific notation.
 a. 8.0×10^{-9}
 b. 80.0×10^8
 c. 8.0×10^{-8}
 d. 8.0×10^9

9. The table shows the melting point in degrees Kelvin (K) for four different elements. Rank the elements in order showing the lowest melting point to the highest.

Melting Points	
Element	Melting Point
Gold	1.33758×10^3 K
Silver	1.2351×10^3 K
Iron	1.808×10^3 K
Aluminum	9.335×10^2 K

Source: <http://www.factmonster.com/periodictable.php>

- a. Aluminum, Silver, Gold, Iron
 b. Silver, Gold, Iron, Aluminum
 c. Iron, Gold, Silver, Aluminum
 d. Gold, Silver, Aluminum, Iron

Replace the ___ with the symbol that makes a true sentence.

10. $\frac{4}{5}$ ___ 0.125

- a. +
 b. <
 c. >
 d. =

11. The table shows the radius in meters of three parts of an atom. Rank the parts of an atom in order from smallest to largest.

Radius of Atomic Components	
Component	Radius
Neutron	1.44×10^{-15} m
Proton	1.5×10^{-18} m
Electron	2.8×10^{-15} m

Source: <http://physics.hallam.ac.kr/reference/scales/scales1p.html>

- a. Electron, Neutron, Proton
 b. Electron, Proton, Neutron
 c. Neutron, Proton, Electron
 d. Proton, Neutron, Electron

Find the product. Write the answer in simplest form.

12. $\frac{-8}{11} \cdot \frac{5}{9}$

- a. $-\frac{3}{20}$
 b. $-3\frac{7}{11}$
 c. $-\frac{40}{99}$
 d. $-1\frac{17}{55}$

13. A motorcycle is traveling at an average rate of 40 mph. How far will the motorcycle travel in $2\frac{3}{4}$ hours?

(Use $D = rt$)

- a. 100 miles
 b. 110 miles
 c. 80 miles
 d. 120 miles

