

Pre-Algebra, Practice Test 3

Chapters 5 & 6: Decimals, Ratios & proportions

1. Perform the operation.

- a. $27.9 + 18.34 + 19.1$
- b. $-37.9 - 32.8$
- c. $2.9 - 3.61$
- d. $(10.35)(2.6)$
- e. $10.5 \div 0.35$
- f. $5467.32 (-0.001)$
- g. $(0.0032)(0.002)$
- h. $(23.0342)(1000)$
- i. $(678.45)(100)$
- j. $106 \div 0.016$
- k. $102 \div 0.02$

2. Round 38.4692 to the nearest:

- a) Tenth: 38.5 b) Hundredth: 38.47 c) Thousandth: 38.469

3. Round off the following decimals to the indicated position:

- a) 13.0675 to tenth b) 0.55324 to hundredth c) 23.56789 to thousandth

- 4. Write 0.048 as a fraction in simplest terms.
- 5. Write $\frac{3}{7}$ as a decimal and round to the nearest thousandth.
- 6. Simplify: $2.72x - 3.5x + 1.8$
- 7. Simplify:

a) $\sqrt{\frac{25}{49}}$

- b) $\sqrt{1} - \sqrt{0}$
 c) $\sqrt{9} - \sqrt{25}$
 d) $(0.3)^2 - 1.6$
 e) $(-3.2)^2(0.2 + 0.3)$
 f) $0.5 + (1.39 + 0.11)^2 \div 0.5 \bullet 10$
8. Solve: a) $2(x + 3.57) = x + 4.31$ b) $6x + 29.3 = 5x - 18.61$
9. Write each ratio as a fraction in simplest form.
- a) 35 men to every 15 women.
 b) 55 inches to 121 inches.
 c) 380 Km. in 10 hours.
 d) 140 computers for 20 printers.
10. Determine if the following represents a true proportion: $\frac{30}{85} = \frac{12}{34}$
11. Solve:
- a) $\frac{x}{12} = \frac{5}{6}$
- b) $\frac{5}{1.5} = \frac{x}{4.8}$ c) $\frac{n}{\frac{1}{2}} = \frac{\frac{3}{2}}{\frac{4}{3}}$
12. What number is added to 0.0023 to obtain 5.0047?
13. A scale drawing for a sundeck is 2 inches corresponding to 9 feet. Find the length of the deck if a line is 5 inches long.
14. Sarah can drive her car for 87.75 miles on 3 gallons of gas. How many miles can she drive on 5 gallon of gas?
15. Find the area of the triangle when $h = 2.5$ cm and $b = 4.6$ cm.
16. Convert the mixed number to decimal: $3\frac{1}{5}$
17. Convert to a mixed number: 3.55
18. Find the surface area and volume of a rectangular solid that has a length of 4.4 in, Width of 2.3 and height of 7 in.
19. Find the circumference and the area of a circle whose radius is 20 m.
20. Find the surface area and volume of a cylinder that has a radius of 3 ft and height of 10 ft.
21. Find the length of the hypotenuse of a right triangle with legs of length 6in and 8 in.

Use Pythagorean Theorem: