

N3CS19

Practice Set 27

Instructions: Answer each question on loose leaf, quad-ruled (graph paper), headed properly and written in lead-graphite. Remember to fold paper along the center, work exercises in order top to bottom, left column then right column. Staple multiple pages



1) Simplify: $\frac{2}{3} \cdot \frac{9x}{4}$

2) Simplify: $\frac{3}{4}(8x - 16)$

3) Solve: $\frac{3}{5}(10x - 5) = 24$

4) Solve: $3(x + 7) = 2x$

5) Solve: $m - 6 = \frac{1}{2}(8 - 18m)$

6) Solve: $3(n + 5) - 6 = 3(n + 3)$

7) Write the square root as the product of its simplest rational and irrational factors: $\sqrt{60}$

8) Solve: $x^2 = 48$; write your solution as the product of its simplest rational and irrational factors
 $x = ?$

9) The area of a square is 72cm^2 ; write your solution as the product of its simplest rational and irrational factors.

10) Multiply; write with positive exponents: $8^{-6} \cdot 8^4$

11) Multiply; write with no exponents: $6^{-8} \cdot 6^5$

12) Simplify: $\frac{4^5}{4^3} =$

13) Simplify: $\frac{9^2}{9^{-3}} =$

14) Write in scientific notation: 1,222,019,000,000

15) Add: $(7.3 \cdot 10^5) + 2,400,000 =$

16) $\frac{48,000}{1,600,000} =$; write your answer in scientific notation



17) Write as a fraction: $0.\overline{72}$

18) Write as a fraction: $0.7\overline{2}$

19) Which is an irrational number?

A) $\frac{3}{17}$, because it can't be written as an integer.

B) -6 , because it is less than zero.

C) $\sqrt{8}$, because it cannot be expressed as either a terminating or repeating decimal.

20) Which of the following equations has only ONE solution?

a) $2x = 2x + 18$

b) $2x - 10 = 2(x - 5)$

c) $5(x + 3) + x$

d) $2x + 5 = 11 - 4x$

21) Which expression is NOT equivalent to $\frac{6^3}{6^6}$?

a) $\frac{1}{6^2}$

b) 6^{-3}

c) $\frac{1}{216}$

d) $\frac{1}{6^3}$

22) Which of the following is a true statement?

a) $(24^8)^5 = 24^{40}$

b) $19^{21} \cdot 19^3 = 19^{63}$

c) $20^1 \cdot 20^0 = 20^0$

d) $\frac{16^{40}}{16^{20}} = 16^2$

