

We're doing extra practice!

lesson 1 p. 13 #20-26

lesson 2 p. 21 #17-26

lesson 3 p. 29 #24-32

lesson 4 p. 37 #23-34

lesson 5 p. 49 #25- 38

IF you finish that up... tomorrow's work is...

lesson 6 p. 57 #16-23

lesson 7 p. 65 #17-22

lesson 8 p. 77 #25-38

lesson 9 p. 87 #20-30

lesson 10 p. 95 #21-28

IF you finish that, then start on the practice test, and complete all homework from chapter 1 for turn in :)



20. Write $\frac{5}{9}$ as a decimal. $0.\overline{5}$

$$\begin{array}{r} 0.55 \\ 9 \overline{) 5.00} \\ \underline{-45} \\ 50 \\ \underline{-45} \\ 5 \dots \end{array}$$

Homework Help

21. Write $7.\overline{15}$ as a mixed number in simplest form. $7\frac{5}{33}$

$$\begin{aligned} N &= 7.151515\dots \\ 100(N) &= 100(7.151515\dots) \\ 100N &= 715.151515\dots \\ \underline{-N} &= \underline{7.151515\dots} \\ 99N &= 708 \\ N &= \frac{708}{99} \text{ or } 7\frac{5}{33} \end{aligned}$$

MP Identify Repeated Reasoning Write each fraction or mixed number as a decimal.

22. $\frac{4}{5} =$ 0.8

23. $5\frac{5}{16} =$ 5.3125

24. $-6\frac{13}{15} =$ $-6.8\overline{6}$

Write each decimal as a fraction or mixed number in simplest form.

25. $-1.55 =$ $-1\frac{11}{20}$

26. $3.\overline{8} =$ $3\frac{8}{9}$

27. $-0.\overline{09} =$ $-\frac{1}{11}$



Homework Help

$= 229$

Write each expression using exponents.

19. $\left(-\frac{5}{6}\right)\left(-\frac{5}{6}\right)\left(-\frac{5}{6}\right) = \underline{\left(-\frac{5}{6}\right)^3}$

20. $s \cdot (7) \cdot s \cdot (7) \cdot (7) = \underline{7^3 \cdot s^2}$

21. $4 \cdot b \cdot b \cdot 4 \cdot b \cdot b = \underline{4^2 \cdot b^4}$

Evaluate each expression.

22. $k^4 \cdot m$, if $k = 3$ and $m = \frac{5}{6}$ $67\frac{1}{2}$

23. $(c^3 + d^4)^2 - (c + d)^3$, if $c = -1$ and $d = 2$
 224

Fill in each \bigcirc with $<$, $>$, or $=$ to make a true statement.

24. $(6 - 2)^2 + 3 \cdot 4 \bigcirc 5^2$

25. $5 + 7^2 + 3^3 \bigcirc 3^4$

26. $\left(\frac{1}{2}\right)^4 \bigcirc \left(\frac{1}{4}\right)^2$

27. **MP** Multiple Representa

Side Length

Perimeter

Area

Extra Practice

Simplify using the Laws of Exponents.

$$24. (3x^8)(5x) = \underline{15x^9}$$

$$(3x^8)(5x) = 3 \cdot 5 \cdot x^8 \cdot x$$

Homework Help →

$$= 15 \cdot x^{8+1}$$

$$= 15x^9$$

$$27. (8w^4)(-w^7) = \underline{-8w^{11}}$$

$$25. \frac{h^7}{h^6} = \underline{h^1 \text{ or } h}$$

$$\frac{h^7}{h^6} = h^{7-6}$$

$$= h^1 \text{ or } h$$

$$26. 2g^2 \cdot 7g^6 = \underline{14g^8}$$

$$28. (-p)(-9p^2) = \underline{9p^3}$$

$$29. \frac{2^9}{2} = \underline{2^8 \text{ or } 256}$$

$$30. \frac{36d^{10}}{6d^5} = \underline{6d^5}$$

$$31. \frac{5^3 \cdot 7^5 \cdot 10}{5 \cdot 7^4} = \underline{5^2 \cdot 7^1 \cdot 10}$$

$$\text{or } 1,750$$

$$32. \frac{(-3)^2 \cdot 4^3 \cdot (-1)^8}{4 \cdot (-1)^5} = \underline{(-3)^2 \cdot 4^2 \cdot (-1)^3 \text{ or } -144}$$

33. **MP Persevere with Problems**          composed of a





Extra Practice

Simplify using the Laws of Exponents.

23. $(2^2)^7 = 2^{14}$

$(2^2)^7 = 2^{2 \cdot 7}$
 $= 2^{14}$

Homework Help →

24. $(8v^9)^5 = 32,768v^{45}$

$(8v^9)^5 = 8^5 \cdot v^{9 \cdot 5}$
 $= 32,768v^{45}$

25. $(3^4)^2 = 3^8$

26. $(m^8)^5 = m^{40}$

27. $(z^{11})^5 = z^{55}$

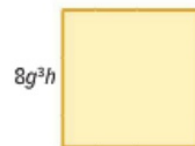
28. $[(4^3)^2]^2 = 4^{12}$

29. $[(2^3)^3]^2 = 2^{18}$

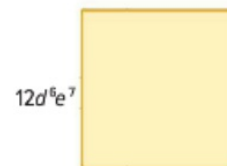
30. $(14y)^4 = 38,416y^4$

Express the area of each square as a monomial.

31. $64g^6h^2 \text{ units}^2$



32. $144d^{12}e^{14} \text{ units}^2$



Express the volume of each cube as a monomial.

33. $125r^6s^9 \text{ units}^3$



34. $343m^{18}n^{27} \text{ units}^3$



Extra Practice

25. Write 3^{-5} using positive exponents. $\frac{1}{3^5}$

Homework Help $\rightarrow (3)^{-5} = \frac{1}{3^5}$

26. Simplify $(4^{-4})(4^2)$. $\frac{1}{16}$

$$\begin{aligned}(4^{-4})(4^2) &= 4^{-4+2} \\ &= 4^{-2} \\ &= \frac{1}{4^2} \text{ or } \frac{1}{16}\end{aligned}$$

Write each expression using a positive exponent.

27. $6^{-8} = \frac{1}{6^8}$

28. $(-3)^{-5} = \frac{1}{(-3)^5}$

29. $s^{-9} = \frac{1}{s^9}$

30. $t^{-11} = \frac{1}{t^{11}}$

Simplify.

31. $z^2 \cdot z^{-3} = \frac{1}{z}$

32. $n^{-1} \cdot n^3 = n^2$

33. $\frac{b^{-7}}{b^5} = \frac{1}{b^{12}}$

34. $\frac{x^4}{x^{-2}} = x^6$

35. $2^{-4} = \frac{1}{16}$

36. $(-5)^{-4} = \frac{1}{625}$

37. $(-10)^{-4} = \frac{1}{10,000}$

38. $(0.5)^{-4} = 16$





Extra Practice

16. Write 7.113×10^7 in standard form.

71,130,000

$7.113 \times 10^7 = 71130000.$ The decimal point moves 7 places right.



17. Write 0.00000707 in scientific notation.

7.07×10^{-6}

$0.00000707 = 7.07 \times 0.000001$
 $= 7.07 \times 10^{-6}$

The decimal point moves 6 places.
 Since $0 < 0.00000707 < 1$,
 the exponent is negative.

Write each number in standard form.

18. $2.08 \times 10^2 =$ 208

19. $7.8 \times 10^{-3} =$ 0.0078

20. $8.73 \times 10^{-4} =$ 0.000873

Write each number in scientific notation.

21. 6,700 = 6.7×10^3

22. 52,300,000 = 5.23×10^7

23. 0.037 = 3.7×10^{-2}

24. **STEM** The table shows several elements. List the element with the highest mass per atom.

Element	Mass per Atom
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Extra Practice

Evaluate each expression. Express the result in scientific notation.

17. $(3.7 \times 10^{-2})(1.2 \times 10^3) = \underline{4.44 \times 10^1}$

Homework Help → $(3.7 \times 10^{-2})(1.2 \times 10^3) = (3.7 \times 1.2) \times (10^{-2} \times 10^3)$
 $= 4.44 \times 10^{-2+3}$
 $= 4.44 \times 10^1$

19. $\frac{3.24 \times 10^{-4}}{8.1 \times 10^{-7}} = \underline{4 \times 10^2}$

21. $(8.64 \times 10^6) + (1.334 \times 10^{10}) =$
 $\underline{1.334864 \times 10^{10}}$

18. $\frac{4.64 \times 10^{-4}}{2.9 \times 10^{-6}} = \underline{1.6 \times 10^2}$

$\frac{4.64 \times 10^{-4}}{2.9 \times 10^{-6}} = \frac{4.64}{2.9} \times \frac{10^{-4}}{10^{-6}}$
 $= 1.6 \times 10^{-4 - (-6)}$
 $= 1.6 \times 10^2$

20. $(7.3 \times 10^5) + 2,400,000 = \underline{3.13 \times 10^6}$

22. $(1.21 \times 10^5) - 9,500 =$
 $\underline{1.115 \times 10^5}$





Extra Practice

Find each square root.

$$25. -\sqrt{81} = \underline{-9}$$

Homework Help

$$9 \cdot 9 = 81$$

$$\text{So, } -\sqrt{81} = -9.$$

$$26. -\sqrt{\frac{64}{225}} = \underline{-\frac{8}{15}}$$

$$27. -\sqrt{\frac{16}{25}} = \underline{-\frac{4}{5}}$$

$$28. \pm\sqrt{1.44} = \underline{\pm 1.2}$$

Find each cube root.

$$29. \sqrt[3]{-216} = \underline{-6}$$

$$30. \sqrt[3]{-512} = \underline{-8}$$

$$31. \sqrt[3]{-1,000} = \underline{-10}$$

$$32. \sqrt[3]{-343} = \underline{-7}$$

Solve each equation. Check your solution(s).

$$33. b^2 = 100 \quad \underline{\pm 10}$$

$$34. \frac{9}{64} = c^2 \quad \underline{\pm \frac{3}{8}}$$

$$35. a^2 = 1.21 \quad \underline{\pm 1.1}$$

$$36. \frac{1}{8} = z^3 \quad \underline{\frac{1}{2}}$$

$$37. 1.331 = c^3 \quad \underline{1.1}$$

$$38. m^3 = 8,000 \quad \underline{20}$$





Help

$$6^2 < 44 < 7^2$$

$$\sqrt{6^2} < \sqrt{44} < \sqrt{7^2}$$

$$\sqrt{44} \text{ is closer to } \sqrt{49} \text{ or } 7.$$

$$5^3 < \sqrt[3]{199} < 6^3$$

$$\sqrt[3]{5^3} < \sqrt[3]{199} < \sqrt[3]{6^3}$$

$$\sqrt[3]{199} \text{ is closer to } \sqrt[3]{216} \text{ or } 6.$$

22. $\sqrt{125} \approx 11$

23. $\sqrt{23.5} \approx 5$

24. $\sqrt[3]{59} \approx 4$

25. $\sqrt[3]{430} \approx 8$

Estimate the solution of each equation to the nearest integer.

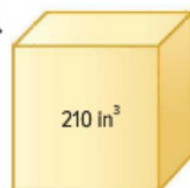
26. $y^2 = 55$ 7 or -7

27. $d^2 = 95$ 10 or -10

28. $p^2 = 6.8$ 3 or -3

The volume of each cube is given. Estimate the side length of the cube to the nearest integer. Use the formula $V = s^3$.

29. 6 in.



30. 8 cm



Extra Practice



21. Name all sets of real numbers to which $\sqrt{10}$ belongs. irrational

$\sqrt{10} \approx 3.16227766\dots$ Since the decimal does not terminate nor repeat, it is an irrational number.

22. Fill in with $<$, $>$, or $=$ to make $5.\overline{15}$ $\sqrt{26}$ a true statement.

Write each number as a decimal.

$5.\overline{15} = 5.15555\dots$

$\sqrt{26} \approx 5.099019\dots$

Since $5.15555\dots$ is greater than $5.099019\dots$, $5.\overline{15} > \sqrt{26}$.

Name all sets of numbers to which each real number belongs.

23. 14
natural, whole, integer, rational

24. $-\sqrt{16}$
integer, rational

25. $-\sqrt[3]{90}$
irrational

Fill in each with $<$, $>$, or $=$ to make a true statement.

26. $\sqrt{12}$ 3.5

27. $6\frac{1}{3}$ $\sqrt[3]{240}$

28. 240% $\sqrt{5.76}$

29. About how much greater is the perimeter of a square with area 250 square meters than a square with area 100 square meters?

