

Add/Subtracting Fractions and Mixed Numbers

Date _____ Period _____

Evaluate each expression.

1) $\frac{5}{4} - \frac{3}{4}$

2) $\frac{3}{2} - \frac{1}{2}$

3) $\frac{2}{5} + \frac{4}{5}$

4) $\frac{1}{3} - \frac{1}{3}$

5) $6 - \frac{1}{6}$

6) $\frac{1}{2} - \frac{1}{2}$

7) $\frac{1}{5} + \frac{1}{5}$

8) $\frac{7}{6} - \frac{5}{6}$

9) $\left(-\frac{4}{5}\right) - \frac{7}{8}$

10) $\frac{1}{3} - \left(-\frac{5}{3}\right)$

11) $\left(-\frac{1}{3}\right) + \frac{3}{8}$

12) $\left(-\frac{10}{7}\right) + \frac{1}{6}$

13) $\frac{9}{5} + \left(-\frac{4}{3}\right)$

14) $2 - \frac{13}{8}$

15) $\frac{9}{5} - \frac{5}{8}$

16) $\left(-\frac{4}{3}\right) - \left(-\frac{3}{2}\right)$

17) $(-1) + \left(-2\frac{2}{5}\right)$

18) $\left(-3\frac{3}{5}\right) - 4\frac{2}{5}$

19) $3\frac{6}{7} + \left(-1\frac{1}{7}\right)$

20) $1\frac{2}{7} + \left(-3\frac{4}{7}\right)$

21) $2\frac{1}{3} + \left(-1\frac{2}{3}\right)$

22) $\left(-1\frac{3}{4}\right) + \left(-3\frac{3}{4}\right)$

23) $\left(-1\frac{7}{8}\right) + \left(-3\frac{1}{2}\right)$

24) $\left(-2\frac{7}{8}\right) + \left(-1\frac{1}{2}\right)$

25) $\left(-2\frac{5}{6}\right) - \left(-1\frac{1}{4}\right)$

26) $\left(-3\frac{5}{8}\right) - 4\frac{2}{5}$

27) $1\frac{2}{5} - \left(-3\frac{3}{4}\right)$

28) $2\frac{4}{5} - \frac{5}{8}$

Add/Subtracting Fractions and Mixed Numbers

Date _____ Period _____

Evaluate each expression.

1) $\frac{5}{4} - \frac{3}{4}$

$$\frac{1}{2}$$

2) $\frac{3}{2} - \frac{1}{2}$

$$1$$

3) $\frac{2}{5} + \frac{4}{5}$

$$\frac{6}{5}$$

4) $\frac{1}{3} - \frac{1}{3}$

$$0$$

5) $6 - \frac{1}{6}$

$$\frac{35}{6}$$

6) $\frac{1}{2} - \frac{1}{2}$

$$0$$

7) $\frac{1}{5} + \frac{1}{5}$

$$\frac{2}{5}$$

8) $\frac{7}{6} - \frac{5}{6}$

$$\frac{1}{3}$$

9) $\left(-\frac{4}{5}\right) - \frac{7}{8}$

$$-\frac{67}{40}$$

10) $\frac{1}{3} - \left(-\frac{5}{3}\right)$

$$2$$

11) $\left(-\frac{1}{3}\right) + \frac{3}{8}$

$$\frac{1}{24}$$

12) $\left(-\frac{10}{7}\right) + \frac{1}{6}$

$$-\frac{53}{42}$$

13) $\frac{9}{5} + \left(-\frac{4}{3}\right)$

$$\frac{7}{15}$$

14) $2 - \frac{13}{8}$

$$\frac{3}{8}$$

15) $\frac{9}{5} - \frac{5}{8}$

$$\frac{47}{40}$$

16) $\left(-\frac{4}{3}\right) - \left(-\frac{3}{2}\right)$

$$\frac{1}{6}$$

17) $(-1) + \left(-2\frac{2}{5}\right)$

$$-3\frac{2}{5}$$

18) $\left(-3\frac{3}{5}\right) - 4\frac{2}{5}$

$$-8$$

19) $3\frac{6}{7} + \left(-1\frac{1}{7}\right)$

$$2\frac{5}{7}$$

20) $1\frac{2}{7} + \left(-3\frac{4}{7}\right)$

$$-2\frac{2}{7}$$

21) $2\frac{1}{3} + \left(-1\frac{2}{3}\right)$

$$\frac{2}{3}$$

22) $\left(-1\frac{3}{4}\right) + \left(-3\frac{3}{4}\right)$

$$-5\frac{1}{2}$$

23) $\left(-1\frac{7}{8}\right) + \left(-3\frac{1}{2}\right)$

$$-5\frac{3}{8}$$

24) $\left(-2\frac{7}{8}\right) + \left(-1\frac{1}{2}\right)$

$$-4\frac{3}{8}$$

25) $\left(-2\frac{5}{6}\right) - \left(-1\frac{1}{4}\right)$

$$-1\frac{7}{12}$$

26) $\left(-3\frac{5}{8}\right) - 4\frac{2}{5}$

$$-8\frac{1}{40}$$

27) $1\frac{2}{5} - \left(-3\frac{3}{4}\right)$

$$5\frac{3}{20}$$

28) $2\frac{4}{5} - \frac{5}{8}$

$$2\frac{7}{40}$$

Adding Square Roots

Simplify.

1) $-5\sqrt{6} - 2\sqrt{6}$

2) $-3\sqrt{5} + 2\sqrt{5}$

3) $-4\sqrt{3} + 3\sqrt{3}$

4) $-3\sqrt{6} - 4\sqrt{6}$

5) $-4\sqrt{10} + 5\sqrt{10}$

6) $-\sqrt{6} - 2\sqrt{6}$

7) $-\sqrt{7} - 5\sqrt{7}$

8) $-\sqrt{10} - 5\sqrt{10}$

9) $-3\sqrt{24} - 3\sqrt{2} + 2\sqrt{2}$

10) $-3\sqrt{45} - \sqrt{5} + 2\sqrt{2}$

$$11) -\sqrt{18} - \sqrt{6} + 2\sqrt{2}$$

$$12) -3\sqrt{12} - 2\sqrt{27} - 2\sqrt{45}$$

$$13) -\sqrt{5} + 3\sqrt{5} + 2\sqrt{45}$$

$$14) -2\sqrt{54} - 3\sqrt{6} + 2\sqrt{54}$$

$$15) 3\sqrt{8} + 2\sqrt{27} + 3\sqrt{3}$$

$$16) 3\sqrt{54} - 3\sqrt{45} + 3\sqrt{45}$$

$$17) 2\sqrt{12} + 3\sqrt{45} + 3\sqrt{3}$$

$$18) -2\sqrt{27} - \sqrt{54} - \sqrt{54}$$

$$19) 4\sqrt{72} + 4\sqrt{128} - \sqrt{96} + 4\sqrt{8}$$

$$20) -3\sqrt{5} + 3\sqrt{112} + 4\sqrt{27} + 2\sqrt{45}$$

$$21) 3\sqrt{72} - 3\sqrt{72} - 2\sqrt{6} + 4\sqrt{7}$$

$$22) -3\sqrt{7} - 2\sqrt{8} - 4\sqrt{6} - 2\sqrt{8}$$

Adding Square Roots

Simplify.

1)
$$\begin{array}{r} -5\sqrt{6} - 2\sqrt{6} \\ -7\sqrt{6} \end{array}$$

2)
$$\begin{array}{r} -3\sqrt{5} + 2\sqrt{5} \\ -\sqrt{5} \end{array}$$

3)
$$\begin{array}{r} -4\sqrt{3} + 3\sqrt{3} \\ -\sqrt{3} \end{array}$$

4)
$$\begin{array}{r} -3\sqrt{6} - 4\sqrt{6} \\ -7\sqrt{6} \end{array}$$

5)
$$\begin{array}{r} -4\sqrt{10} + 5\sqrt{10} \\ \sqrt{10} \end{array}$$

6)
$$\begin{array}{r} -\sqrt{6} - 2\sqrt{6} \\ -3\sqrt{6} \end{array}$$

7)
$$\begin{array}{r} -\sqrt{7} - 5\sqrt{7} \\ -6\sqrt{7} \end{array}$$

8)
$$\begin{array}{r} -\sqrt{10} - 5\sqrt{10} \\ -6\sqrt{10} \end{array}$$

9)
$$\begin{array}{r} -3\sqrt{24} - 3\sqrt{2} + 2\sqrt{2} \\ -6\sqrt{6} - \sqrt{2} \end{array}$$

10)
$$\begin{array}{r} -3\sqrt{45} - \sqrt{5} + 2\sqrt{2} \\ -10\sqrt{5} + 2\sqrt{2} \end{array}$$

$$11) \frac{-\sqrt{18} - \sqrt{6} + 2\sqrt{2}}{-\sqrt{2} - \sqrt{6}}$$

$$12) \frac{-3\sqrt{12} - 2\sqrt{27} - 2\sqrt{45}}{-12\sqrt{3} - 6\sqrt{5}}$$

$$13) \frac{-\sqrt{5} + 3\sqrt{5} + 2\sqrt{45}}{8\sqrt{5}}$$

$$14) \frac{-2\sqrt{54} - 3\sqrt{6} + 2\sqrt{54}}{-3\sqrt{6}}$$

$$15) \frac{3\sqrt{8} + 2\sqrt{27} + 3\sqrt{3}}{6\sqrt{2} + 9\sqrt{3}}$$

$$16) \frac{3\sqrt{54} - 3\sqrt{45} + 3\sqrt{45}}{9\sqrt{6}}$$

$$17) \frac{2\sqrt{12} + 3\sqrt{45} + 3\sqrt{3}}{7\sqrt{3} + 9\sqrt{5}}$$

$$18) \frac{-2\sqrt{27} - \sqrt{54} - \sqrt{54}}{-6\sqrt{3} - 6\sqrt{6}}$$

$$19) \frac{4\sqrt{72} + 4\sqrt{128} - \sqrt{96} + 4\sqrt{8}}{64\sqrt{2} - 4\sqrt{6}}$$

$$20) \frac{-3\sqrt{5} + 3\sqrt{112} + 4\sqrt{27} + 2\sqrt{45}}{3\sqrt{5} + 12\sqrt{7} + 12\sqrt{3}}$$

$$21) \frac{3\sqrt{72} - 3\sqrt{72} - 2\sqrt{6} + 4\sqrt{7}}{-2\sqrt{6} + 4\sqrt{7}}$$

$$22) \frac{-3\sqrt{7} - 2\sqrt{8} - 4\sqrt{6} - 2\sqrt{8}}{-3\sqrt{7} - 8\sqrt{2} - 4\sqrt{6}}$$

Calculator Usage

Use a calculator to enter the following calculation all at once. Verify the answer.

1) $\frac{5(-2)+7}{2+3} - 5 = -0.6$

2) $\frac{1}{2}[(123 - 56) - 20] = 23.5$

3) $(3\sqrt{2})^2 - \sqrt{30} = 12.52$

4) $\frac{65}{360}(12\pi) = 6.81$

5) $\frac{124}{4\pi} = 9.87$

6) $\frac{1}{2}(6 \cdot 5)8\sqrt{2} + 2(3 \cdot 6 \cdot 5) = 349.71$

7) $\frac{4}{3}\pi(12)^3 = 7238.23$

8) $\pi(6)^2 + \frac{1}{2}\pi(12)(10) + 12\pi(25) = 1244.07$

Calculator Usage

Use a calculator to enter the following calculation all at once. Verify the answer.

1) $\frac{5(-2)+7}{2+3} - 5 = -0.6$

$(5 \times -2 + 7) \div (2 + 3)$

2) $\frac{1}{2}[(123 - 56) - 20] = 23.5$

$0.5((123 - 56) - 20)$

3) $(3\sqrt{2})^2 - \sqrt{30} = 12.52$

$(3\sqrt{(2)})^2 - \sqrt{(30)}$

4) $\frac{65}{360}(12\pi) = 6.81$

$65 \div 360 \times 12\pi$

5) $\frac{124}{4\pi} = 9.87$

$124 \div (4\pi)$

6) $\frac{1}{2}(6 \cdot 5)8\sqrt{2} + 2(3 \cdot 6 \cdot 5) = 349.71$

$1 \div 2(6 \times 5) \times 8 \times \sqrt{(2)} + 2(3 \times 6 \times 5)$

7) $\frac{4}{3}\pi(12)^3 = 7238.23$

$4 \div 3 \times \pi \times 12^3$

8) $\pi(6)^2 + \frac{1}{2}\pi(12)(10) + 12\pi(25) = 1244.07$

$\pi 6^2 + 1 \div 2 \pi \times 12 \times 10 + 12 \pi \times 25$

Comparing Numbers

Without using a calculator, use the symbols $<$, $>$, or $=$ to compare the following values.

1) $\frac{1}{2}$ 0.75

2) $0.\overline{66}$ $\frac{2}{3}$

3) $\sqrt{20}$ 5

4) $\frac{2}{3}$ $\frac{3}{4}$

5) $\frac{6}{7}$ $\frac{3}{8}$

6) 3π 6

7) 1.25 $\frac{5}{4}$

8) $2\frac{4}{5}$ $\frac{9}{5}$

9) $\sqrt{30}$ 4π

10) $\frac{132}{45}$ $\frac{123}{54}$

Comparing Numbers

Without using a calculator, use the symbols $<$, $>$, or $=$ to compare the following values.

1) $\frac{1}{2} < 0.75$

2) $0.\overline{66} = \frac{2}{3}$

3) $\sqrt{20} < 5$

4) $\frac{2}{3} < \frac{3}{4}$

5) $\frac{6}{7} > \frac{3}{8}$

6) $3\pi > 6$

7) $1.25 = \frac{5}{4}$

8) $2\frac{4}{5} > \frac{9}{5}$

9) $\sqrt{30} < 4\pi$

10) $\frac{1}{45} > \frac{1}{54}$

Fractions and Decimals

Write each as a decimal. Use repeating decimals when necessary.

1) $\frac{1}{4}$

2) $2\frac{3}{5}$

3) $\frac{5}{8}$

4) $\frac{3}{5}$

5) $\frac{7}{200}$

6) $\frac{8}{33}$

7) $\frac{6}{11}$

8) $\frac{7}{50}$

9) $4\frac{27}{125}$

10) $\frac{7}{20}$

11) $\frac{1}{111}$

12) $\frac{1}{125}$

Write each as a fraction.

13) 2.2

14) 1.6

15) 0.08

16) 0.27

17) 1.76

18) $0.\overline{15}$

19) $0.\overline{3}$

20) $0.\overline{09}$

21) $0.\overline{7}$

22) $0.\overline{46}$

23) 0.005

24) 0.4

Fractions and Decimals

Date _____ Period _____

Write each as a decimal. Use repeating decimals when necessary.

1) $\frac{1}{4}$

0.25

2) $2\frac{3}{5}$

2.6

3) $\frac{5}{8}$

0.625

4) $\frac{3}{5}$

0.6

5) $\frac{7}{200}$

0.035

6) $\frac{8}{33}$

 $0.\overline{24}$

7) $\frac{6}{11}$

 $0.\overline{54}$

8) $\frac{7}{50}$

0.14

9) $4\frac{27}{125}$

4.216

10) $\frac{7}{20}$

0.35

$$11) \frac{1}{111} \\ 0.\overline{009}$$

$$12) \frac{1}{125} \\ 0.008$$

Write each as a fraction.

$$13) 2.2$$

$$2\frac{1}{5}$$

$$14) 1.6$$

$$1\frac{3}{5}$$

$$15) 0.08$$

$$\frac{2}{25}$$

$$16) 0.27$$

$$\frac{27}{100}$$

$$17) 1.76$$

$$1\frac{19}{25}$$

$$18) 0.\overline{15}$$

$$\frac{5}{33}$$

$$19) 0.\overline{3}$$

$$\frac{1}{3}$$

$$20) 0.\overline{09}$$

$$\frac{1}{11}$$

$$21) 0.\overline{7}$$

$$\frac{7}{9}$$

$$22) 0.\overline{46}$$

$$\frac{46}{99}$$

$$23) 0.005$$

$$\frac{1}{200}$$

$$24) 0.4$$

$$\frac{2}{5}$$

Dividing and Square Roots

Simplify.

1) $\frac{\sqrt{3}}{\sqrt{48}}$

2) $\frac{\sqrt{12}}{\sqrt{4}}$

3) $\frac{\sqrt{20}}{\sqrt{5}}$

4) $\frac{\sqrt{8}}{\sqrt{100}}$

5) $\frac{\sqrt{15}}{\sqrt{125}}$

6) $\frac{\sqrt{6}}{\sqrt{8}}$

7) $\frac{4\sqrt{6}}{3\sqrt{8}}$

8) $\frac{2\sqrt{3}}{4\sqrt{27}}$

9) $\frac{2\sqrt{3}}{2\sqrt{12}}$

10) $\frac{4\sqrt{6}}{4\sqrt{27}}$

11) $\frac{3\sqrt{20}}{4\sqrt{16}}$

12) $\frac{3\sqrt{20}}{3\sqrt{36}}$

$$13) \frac{\sqrt{25}}{\sqrt{15}}$$

$$14) \frac{\sqrt{5}}{\sqrt{15}}$$

$$15) \frac{\sqrt{10}}{\sqrt{6}}$$

$$16) \frac{\sqrt{15}}{\sqrt{6}}$$

$$17) \frac{\sqrt{8}}{\sqrt{6}}$$

$$18) \frac{\sqrt{6}}{\sqrt{15}}$$

$$19) \frac{3\sqrt{3}}{\sqrt{5}}$$

$$20) \frac{3\sqrt{3}}{5\sqrt{2}}$$

$$21) \frac{4}{3\sqrt{5}}$$

$$22) \frac{2\sqrt{2}}{2\sqrt{3}}$$

$$23) \frac{5\sqrt{4}}{\sqrt{5}}$$

$$24) \frac{3\sqrt{5}}{2\sqrt{2}}$$

Dividing and Square Roots

Simplify.

1) $\frac{\sqrt{3}}{\sqrt{48}}$
 $\frac{1}{4}$

2) $\frac{\sqrt{12}}{\sqrt{4}}$
 $\sqrt{3}$

3) $\frac{\sqrt{20}}{\sqrt{5}}$
2

4) $\frac{\sqrt{8}}{\sqrt{100}}$
 $\frac{\sqrt{2}}{5}$

5) $\frac{\sqrt{15}}{\sqrt{125}}$
 $\frac{\sqrt{3}}{5}$

6) $\frac{\sqrt{6}}{\sqrt{8}}$
 $\frac{\sqrt{3}}{2}$

7) $\frac{4\sqrt{6}}{3\sqrt{8}}$
 $\frac{2\sqrt{3}}{3}$

8) $\frac{2\sqrt{3}}{4\sqrt{27}}$
 $\frac{1}{6}$

9) $\frac{2\sqrt{3}}{2\sqrt{12}}$
 $\frac{1}{2}$

10) $\frac{4\sqrt{6}}{4\sqrt{27}}$
 $\frac{\sqrt{2}}{3}$

11) $\frac{3\sqrt{20}}{4\sqrt{16}}$
 $\frac{3\sqrt{5}}{8}$

12) $\frac{3\sqrt{20}}{3\sqrt{36}}$
 $\frac{\sqrt{5}}{3}$

$$13) \frac{\sqrt{25}}{\sqrt{15}} \cdot \frac{\sqrt{15}}{3}$$

$$14) \frac{\sqrt{5}}{\sqrt{15}} \cdot \frac{\sqrt{3}}{3}$$

$$15) \frac{\sqrt{10}}{\sqrt{6}} \cdot \frac{\sqrt{15}}{3}$$

$$16) \frac{\sqrt{15}}{\sqrt{6}} \cdot \frac{\sqrt{10}}{2}$$

$$17) \frac{\sqrt{8}}{\sqrt{6}} \cdot \frac{2\sqrt{3}}{3}$$

$$18) \frac{\sqrt{6}}{\sqrt{15}} \cdot \frac{\sqrt{10}}{5}$$

$$19) \frac{3\sqrt{3}}{\sqrt{5}} \cdot \frac{3\sqrt{15}}{5}$$

$$20) \frac{3\sqrt{3}}{5\sqrt{2}} \cdot \frac{3\sqrt{6}}{10}$$

$$21) \frac{4}{3\sqrt{5}} \cdot \frac{4\sqrt{5}}{15}$$

$$22) \frac{2\sqrt{2}}{2\sqrt{3}} \cdot \frac{\sqrt{6}}{3}$$

$$23) \frac{5\sqrt{4}}{\sqrt{5}} \cdot 2\sqrt{5}$$

$$24) \frac{3\sqrt{5}}{2\sqrt{2}} \cdot \frac{3\sqrt{10}}{4}$$

Evaluating Expressions

Evaluate each using the values given.

1) $y \div 2 + x$; use $x = 1$, and $y = 2$

2) $a - 5 - b$; use $a = 10$, and $b = 4$

3) $p^2 + m$; use $m = 1$, and $p = 5$

4) $y + 9 - x$; use $x = 1$, and $y = 3$

5) $m + p \div 5$; use $m = 1$, and $p = 5$

6) $y^2 - x$; use $x = 7$, and $y = 7$

7) $z(x + y)$; use $x = 6$, $y = 8$, and $z = 6$

8) $x + y + y$; use $x = 9$, and $y = 10$

9) $p^3 + 10 + m$; use $m = 9$, and $p = 3$

10) $6q + m - m$; use $m = 8$, and $q = 3$

11) $p^2m \div 4$; use $m = 4$, and $p = 7$

12) $y - (z + z^2)$; use $y = 10$, and $z = 2$

13) $z - (y \div 3 - 1)$; use $y = 3$, and $z = 7$

14) $(y + x) \div 2 + x$; use $x = 1$, and $y = 1$

15) $p - (9 - (m + q))$; use $m = 4$, $p = 5$, and $q = 3$

16) $(a^2 - b) \div 6$; use $a = 5$, and $b = 1$

17) $(6 + h^2 - j) \div 2$; use $h = 6$, and $j = 4$

18) $y - (4 - x - y \div 2)$; use $x = 3$, and $y = 2$

19) $x^3 \div 3 - y$; use $x = 3$, and $y = 1$

20) $(p + q)^2 - (5 - 5)$; use $p = 1$, and $q = 1$

21) $12k - h^2$; use $h = 2$, and $k = 3$

22) $y \div 5 + 1 + x \div 6$; use $x = 6$, and $y = 5$

23) $6 \div 6 + z + x - y$; use $x = 2$, $y = 5$, and $z = 6$

24) $y - z + xz \div 6$; use $x = 3$, $y = 4$, and $z = 4$

25) $\frac{y}{2} + x + 4 + z + y$; use $x = 7$, $y = 2$, and $z = 4$

26) $c \times \frac{bc}{4} - (7 - a)$; use $a = 4$, $b = 8$, and $c = 5$

Evaluating Expressions

Evaluate each using the values given.

1) $y \div 2 + x$; use $x = 1$, and $y = 2$

2

2) $a - 5 - b$; use $a = 10$, and $b = 4$

1

3) $p^2 + m$; use $m = 1$, and $p = 5$

26

4) $y + 9 - x$; use $x = 1$, and $y = 3$

11

5) $m + p \div 5$; use $m = 1$, and $p = 5$

2

6) $y^2 - x$; use $x = 7$, and $y = 7$

42

7) $z(x + y)$; use $x = 6$, $y = 8$, and $z = 6$

84

8) $x + y + y$; use $x = 9$, and $y = 10$

29

9) $p^3 + 10 + m$; use $m = 9$, and $p = 3$

46

10) $6q + m - m$; use $m = 8$, and $q = 3$

18

11) $p^2m \div 4$; use $m = 4$, and $p = 7$

49

12) $y - (z + z^2)$; use $y = 10$, and $z = 2$

4

13) $z - (y \div 3 - 1)$; use $y = 3$, and $z = 7$

7

14) $(y + x) \div 2 + x$; use $x = 1$, and $y = 1$

2

15) $p - (9 - (m + q))$; use $m = 4$, $p = 5$, and $q = 3$
3

16) $(a^2 - b) \div 6$; use $a = 5$, and $b = 1$
4

17) $(6 + h^2 - j) \div 2$; use $h = 6$, and $j = 4$
19

18) $y - (4 - x - y \div 2)$; use $x = 3$, and $y = 2$
2

19) $x^3 \div 3 - y$; use $x = 3$, and $y = 1$
8

20) $(p + q)^2 - (5 - 5)$; use $p = 1$, and $q = 1$
4

21) $12k - h^2$; use $h = 2$, and $k = 3$
32

22) $y \div 5 + 1 + x \div 6$; use $x = 6$, and $y = 5$
3

23) $6 \div 6 + z + x - y$; use $x = 2$, $y = 5$, and $z = 6$
4

24) $y - z + xz \div 6$; use $x = 3$, $y = 4$, and $z = 4$
2

25) $\frac{y}{2} + x + 4 + z + y$; use $x = 7$, $y = 2$, and $z = 4$
18

26) $c \times \frac{bc}{4} - (7 - a)$; use $a = 4$, $b = 8$, and $c = 5$
47

Factoring Trinomials (a = 1)

Factor each completely.

1) $b^2 + 8b + 7$

2) $n^2 - 11n + 10$

3) $m^2 + m - 90$

4) $n^2 + 4n - 12$

5) $n^2 - 10n + 9$

6) $b^2 + 16b + 64$

7) $m^2 + 2m - 24$

8) $x^2 - 4x + 24$

9) $k^2 - 13k + 40$

10) $a^2 + 11a + 18$

11) $n^2 - n - 56$

12) $n^2 - 5n + 6$

13) $b^2 - 6b + 8$

14) $n^2 + 6n + 8$

15) $2n^2 + 6n - 108$

16) $5n^2 + 10n + 20$

17) $2k^2 + 22k + 60$

18) $a^2 - a - 90$

19) $p^2 + 11p + 10$

20) $5v^2 - 30v + 40$

21) $2p^2 + 2p - 4$

22) $4v^2 - 4v - 8$

23) $x^2 - 15x + 50$

24) $v^2 - 7v + 10$

25) $p^2 + 3p - 18$

26) $6v^2 + 66v + 60$

Factoring Trinomials (a = 1)

Factor each completely.

1) $b^2 + 8b + 7$

$(b + 7)(b + 1)$

2) $n^2 - 11n + 10$

$(n - 10)(n - 1)$

3) $m^2 + m - 90$

$(m - 9)(m + 10)$

4) $n^2 + 4n - 12$

$(n - 2)(n + 6)$

5) $n^2 - 10n + 9$

$(n - 1)(n - 9)$

6) $b^2 + 16b + 64$

$(b + 8)^2$

7) $m^2 + 2m - 24$

$(m + 6)(m - 4)$

8) $x^2 - 4x + 24$

Not factorable

9) $k^2 - 13k + 40$

$(k - 5)(k - 8)$

10) $a^2 + 11a + 18$

$(a + 2)(a + 9)$

11) $n^2 - n - 56$

$(n + 7)(n - 8)$

12) $n^2 - 5n + 6$

$(n - 2)(n - 3)$

$$13) b^2 - 6b + 8$$
$$(b - 4)(b - 2)$$

$$14) n^2 + 6n + 8$$
$$(n + 2)(n + 4)$$

$$15) 2n^2 + 6n - 108$$
$$2(n + 9)(n - 6)$$

$$16) 5n^2 + 10n + 20$$
$$5(n^2 + 2n + 4)$$

$$17) 2k^2 + 22k + 60$$
$$2(k + 5)(k + 6)$$

$$18) a^2 - a - 90$$
$$(a - 10)(a + 9)$$

$$19) p^2 + 11p + 10$$
$$(p + 10)(p + 1)$$

$$20) 5v^2 - 30v + 40$$
$$5(v - 2)(v - 4)$$

$$21) 2p^2 + 2p - 4$$
$$2(p - 1)(p + 2)$$

$$22) 4v^2 - 4v - 8$$
$$4(v + 1)(v - 2)$$

$$23) x^2 - 15x + 50$$
$$(x - 10)(x - 5)$$

$$24) v^2 - 7v + 10$$
$$(v - 5)(v - 2)$$

$$25) p^2 + 3p - 18$$
$$(p - 3)(p + 6)$$

$$26) 6v^2 + 66v + 60$$
$$6(v + 10)(v + 1)$$

Multiplying/Dividing Fractions and Mixed Numbers

Date _____ Period _____

Find each product.

1) $-\frac{5}{4} \cdot \frac{1}{3}$

2) $\frac{8}{7} \cdot \frac{7}{10}$

3) $\frac{4}{9} \cdot \frac{7}{4}$

4) $-\frac{2}{3} \cdot \frac{5}{4}$

5) $-2 \cdot \frac{3}{7}$

6) $-2\frac{2}{3} \cdot 4\frac{1}{10}$

7) $-2\frac{1}{5} \cdot -1\frac{3}{4}$

8) $-1\frac{1}{4} \cdot 9$

9) $-1\frac{5}{7} \cdot -2\frac{1}{2}$

10) $-2\frac{3}{8} \cdot 2\frac{1}{2}$

Find each quotient.

$$11) \frac{-1}{5} \div \frac{7}{4}$$

$$12) \frac{-1}{2} \div \frac{5}{4}$$

$$13) \frac{-3}{2} \div \frac{-10}{7}$$

$$14) \frac{1}{2} \div \frac{8}{7}$$

$$15) \frac{-9}{5} \div 2$$

$$16) -3\frac{5}{9} \div 3$$

$$17) -2 \div -3\frac{4}{5}$$

$$18) \frac{1}{9} \div -1\frac{1}{3}$$

$$19) 1\frac{6}{7} \div 5\frac{3}{4}$$

$$20) -3\frac{7}{10} \div 2\frac{1}{4}$$

Multiplying/Dividing Fractions and Mixed Numbers

Date _____ Period _____

Find each product.

$$1) -\frac{5}{4} \cdot \frac{1}{3}$$
$$-\frac{5}{12}$$

$$2) \frac{8}{7} \cdot \frac{7}{10}$$
$$\frac{4}{5}$$

$$3) \frac{4}{9} \cdot \frac{7}{4}$$
$$\frac{7}{9}$$

$$4) -\frac{2}{3} \cdot \frac{5}{4}$$
$$-\frac{5}{6}$$

$$5) -2 \cdot \frac{3}{7}$$
$$-\frac{6}{7}$$

$$6) -2\frac{2}{3} \cdot 4\frac{1}{10}$$
$$-10\frac{14}{15}$$

$$7) -2\frac{1}{5} \cdot -1\frac{3}{4}$$
$$3\frac{17}{20}$$

$$8) -1\frac{1}{4} \cdot 9$$
$$-11\frac{1}{4}$$

$$9) -1\frac{5}{7} \cdot -2\frac{1}{2}$$
$$4\frac{2}{7}$$

$$10) -2\frac{3}{8} \cdot 2\frac{1}{2}$$
$$-5\frac{15}{16}$$

Find each quotient.

$$11) \frac{-1}{5} \div \frac{7}{4}$$

$$-\frac{4}{35}$$

$$12) \frac{-1}{2} \div \frac{5}{4}$$

$$-\frac{2}{5}$$

$$13) \frac{-3}{2} \div \frac{-10}{7}$$

$$\frac{21}{20}$$

$$14) \frac{1}{2} \div \frac{8}{7}$$

$$\frac{7}{16}$$

$$15) \frac{-9}{5} \div 2$$

$$-\frac{9}{10}$$

$$16) -3\frac{5}{9} \div 3$$

$$-1\frac{5}{27}$$

$$17) -2 \div -3\frac{4}{5}$$

$$\frac{10}{19}$$

$$18) \frac{1}{9} \div -1\frac{1}{3}$$

$$-\frac{1}{12}$$

$$19) 1\frac{6}{7} \div 5\frac{3}{4}$$

$$\frac{52}{161}$$

$$20) -3\frac{7}{10} \div 2\frac{1}{4}$$

$$-1\frac{29}{45}$$

Multiplying Square Roots

Simplify.

1) $\sqrt{5} \cdot \sqrt{5}$

2) $\sqrt{10} \cdot \sqrt{2}$

3) $\sqrt{8} \cdot \sqrt{8}$

4) $\sqrt{20} \cdot \sqrt{10}$

5) $\sqrt{3} \cdot \sqrt{3}$

6) $\sqrt{5} \cdot \sqrt{12}$

7) $2\sqrt{2} \cdot \sqrt{12}$

8) $\sqrt{5} \cdot 2\sqrt{2}$

9) $\sqrt{6} \cdot -2\sqrt{6}$

10) $\sqrt{2} \cdot -2\sqrt{5}$

11) $\sqrt{6} \cdot -\sqrt{9}$

12) $\sqrt{5} \cdot -5\sqrt{5}$

$$13) \sqrt{15}(\sqrt{3} + 2)$$

$$14) \sqrt{6}(\sqrt{2} + \sqrt{3})$$

$$15) \sqrt{10}(\sqrt{10} + 2)$$

$$16) \sqrt{5}(\sqrt{5} + 3)$$

$$17) \sqrt{5}(5 + \sqrt{5})$$

$$18) \sqrt{15}(\sqrt{3} + \sqrt{10})$$

$$19) -5\sqrt{3}(2 + \sqrt{5})$$

$$20) \sqrt{3}(5 + \sqrt{2})$$

$$21) \sqrt{10}(4\sqrt{2} + \sqrt{5})$$

$$22) 3\sqrt{6}(\sqrt{10} - \sqrt{3})$$

$$23) -4\sqrt{5}(4 - 3\sqrt{10})$$

$$24) \sqrt{5}(-4\sqrt{6} + \sqrt{10})$$

Multiplying Square Roots

Simplify.

1) $\frac{\sqrt{5} \cdot \sqrt{5}}{5}$

2) $\frac{\sqrt{10} \cdot \sqrt{2}}{2\sqrt{5}}$

3) $\frac{\sqrt{8} \cdot \sqrt{8}}{8}$

4) $\frac{\sqrt{20} \cdot \sqrt{10}}{10\sqrt{2}}$

5) $\frac{\sqrt{3} \cdot \sqrt{3}}{3}$

6) $\frac{\sqrt{5} \cdot \sqrt{12}}{2\sqrt{15}}$

7) $\frac{2\sqrt{2} \cdot \sqrt{12}}{4\sqrt{6}}$

8) $\frac{\sqrt{5} \cdot 2\sqrt{2}}{2\sqrt{10}}$

9) $\frac{\sqrt{6} \cdot -2\sqrt{6}}{-12}$

10) $\frac{\sqrt{2} \cdot -2\sqrt{5}}{-2\sqrt{10}}$

11) $\frac{\sqrt{6} \cdot -\sqrt{9}}{-3\sqrt{6}}$

12) $\frac{\sqrt{5} \cdot -5\sqrt{5}}{-25}$

$$13) \frac{\sqrt{15}(\sqrt{3} + 2)}{3\sqrt{5} + 2\sqrt{15}}$$

$$14) \frac{\sqrt{6}(\sqrt{2} + \sqrt{3})}{2\sqrt{3} + 3\sqrt{2}}$$

$$15) \frac{\sqrt{10}(\sqrt{10} + 2)}{10 + 2\sqrt{10}}$$

$$16) \frac{\sqrt{5}(\sqrt{5} + 3)}{5 + 3\sqrt{5}}$$

$$17) \frac{\sqrt{5}(5 + \sqrt{5})}{5\sqrt{5} + 5}$$

$$18) \frac{\sqrt{15}(\sqrt{3} + \sqrt{10})}{3\sqrt{5} + 5\sqrt{6}}$$

$$19) \frac{-5\sqrt{3}(2 + \sqrt{5})}{-10\sqrt{3} - 5\sqrt{15}}$$

$$20) \frac{\sqrt{3}(5 + \sqrt{2})}{5\sqrt{3} + \sqrt{6}}$$

$$21) \frac{\sqrt{10}(4\sqrt{2} + \sqrt{5})}{8\sqrt{5} + 5\sqrt{2}}$$

$$22) \frac{3\sqrt{6}(\sqrt{10} - \sqrt{3})}{6\sqrt{15} - 9\sqrt{2}}$$

$$23) \frac{-4\sqrt{5}(4 - 3\sqrt{10})}{-16\sqrt{5} + 60\sqrt{2}}$$

$$24) \frac{\sqrt{5}(-4\sqrt{6} + \sqrt{10})}{-4\sqrt{30} + 5\sqrt{2}}$$

Order of Operations

Date _____ Period _____

Evaluate each expression.

1) $(30 - 3) \div 3$

2) $(21 - 5) \div 8$

3) $1 + 7^2$

4) $5 \times 4 - 8$

5) $8 + 6 \times 9$

6) $3 + 17 \times 5$

7) $7 + 12 \times 11$

8) $15 + 40 \div 20$

9) $20 + 16 - 15$

10) $19 - 15 - 3$

11) $9 \times (3 + 3) \div 6$

12) $(9 + 18 - 3) \div 8$

$$13) 9 + 6 \div (8 - 2)$$

$$14) 4(4 \div 2 + 4)$$

$$15) 6 + (5 + 8) \times 4$$

$$16) 6 \times 6 - (7 + 5)$$

$$17) (9 \times 2) \div (2 + 1)$$

$$18) 2 - (4 + 3 - 6)$$

$$19) 7 \times 7 - (8 - 2)$$

$$20) 9 - 7 - 6 \div 6$$

$$21) (4 - 1 + 8 \div 8) \times 5$$

$$22) (10 \times 2) \div (1 + 1)$$

$$23) 7 \times 9 - 7 - 3 \times 5$$

$$24) 8 - 1 - (18 - 2) \div 8$$

Order of Operations

Evaluate each expression.

1) $(30 - 3) \div 3$

9

2) $(21 - 5) \div 8$

2

3) $1 + 7^2$

50

4) $5 \times 4 - 8$

12

5) $8 + 6 \times 9$

62

6) $3 + 17 \times 5$

88

7) $7 + 12 \times 11$

139

8) $15 + 40 \div 20$

17

9) $20 + 16 - 15$

21

10) $19 - 15 - 3$

1

11) $9 \times (3 + 3) \div 6$

9

12) $(9 + 18 - 3) \div 8$

3

$$13) 9 + 6 \div (8 - 2)$$

10

$$14) 4(4 \div 2 + 4)$$

24

$$15) 6 + (5 + 8) \times 4$$

58

$$16) 6 \times 6 - (7 + 5)$$

24

$$17) (9 \times 2) \div (2 + 1)$$

6

$$18) 2 - (4 + 3 - 6)$$

1

$$19) 7 \times 7 - (8 - 2)$$

43

$$20) 9 - 7 - 6 \div 6$$

1

$$21) (4 - 1 + 8 \div 8) \times 5$$

20

$$22) (10 \times 2) \div (1 + 1)$$

10

$$23) 7 \times 9 - 7 - 3 \times 5$$

41

$$24) 8 - 1 - (18 - 2) \div 8$$

5

Square Roots

Find each square root.

1) $\sqrt{64}$

2) $\sqrt{36}$

3) $\sqrt{49}$

4) $\sqrt{0}$

5) $\sqrt{25}$

6) $\sqrt{1}$

7) $\sqrt{9}$

8) $\sqrt{4}$

Find each square root. Round to the nearest whole number.

9) $-\sqrt{200}$

10) $\sqrt{144}$

11) $-\sqrt{80}$

12) $-\sqrt{34}$

13) $-\sqrt{127}$

14) $\sqrt{1}$

15) $-\sqrt{36}$

16) $-\sqrt{148}$

Find each square root.

17) $-\sqrt{\frac{1}{4}}$

18) $\sqrt{\frac{81}{121}}$

19) $\sqrt{\frac{49}{196}}$

20) $\sqrt{\frac{81}{49}}$

21) $-\sqrt{\frac{25}{196}}$

22) $-\sqrt{\frac{196}{225}}$

Square Roots

Find each square root.

1) $\sqrt{64}$
8

2) $\sqrt{36}$
6

3) $\sqrt{49}$
7

4) $\sqrt{0}$
0

5) $\sqrt{25}$
5

6) $\sqrt{1}$
1

7) $\sqrt{9}$
3

8) $\sqrt{4}$
2

Find each square root. Round to the nearest whole number.

9) $-\sqrt{200}$
-14

10) $\sqrt{144}$
12

11) $-\sqrt{80}$
-9

12) $-\sqrt{34}$
-6

13) $-\sqrt{127}$
-11

14) $\sqrt{1}$
1

15) $-\sqrt{36}$
-6

16) $-\sqrt{148}$
-12

Find each square root.

17) $-\sqrt{\frac{1}{4}}$
 $-\frac{1}{2}$

18) $\sqrt{\frac{81}{121}}$
 $\frac{9}{11}$

19) $\sqrt{\frac{49}{196}}$
 $\frac{1}{2}$

20) $\sqrt{\frac{81}{49}}$
 $1\frac{2}{7}$

21) $-\sqrt{\frac{25}{196}}$
 $-\frac{5}{14}$

22) $-\sqrt{\frac{196}{225}}$
 $-\frac{14}{15}$

Multi-Step Equations

Solve each equation.

1) $-20 = -4x - 6x$

2) $6 = 1 - 2n + 5$

3) $8x - 2 = -9 + 7x$

4) $a + 5 = -5a + 5$

5) $4m - 4 = 4m$

6) $p - 1 = 5p + 3p - 8$

7) $5p - 14 = 8p + 4$

8) $p - 4 = -9 + p$

9) $-8 = -(x + 4)$

10) $12 = -4(-6x - 3)$

11) $14 = -(p - 8)$

12) $-(7 - 4x) = 9$

13) $-18 - 6k = 6(1 + 3k)$

14) $5n + 34 = -2(1 - 7n)$

15) $2(4x - 3) - 8 = 4 + 2x$

16) $3n - 5 = -8(6 + 5n)$

17) $-(1 + 7x) - 6(-7 - x) = 36$

18) $-3(4x + 3) + 4(6x + 1) = 43$

19) $24a - 22 = -4(1 - 6a)$

20) $-5(1 - 5x) + 5(-8x - 2) = -4x - 8x$

Multi-Step Equations

Solve each equation.

1) $-20 = -4x - 6x$

 $\{2\}$

2) $6 = 1 - 2n + 5$

 $\{0\}$

3) $8x - 2 = -9 + 7x$

 $\{-7\}$

4) $a + 5 = -5a + 5$

 $\{0\}$

5) $4m - 4 = 4m$

No solution.

6) $p - 1 = 5p + 3p - 8$

 $\{1\}$

7) $5p - 14 = 8p + 4$

 $\{-6\}$

8) $p - 4 = -9 + p$

No solution.

9) $-8 = -(x + 4)$

 $\{4\}$

10) $12 = -4(-6x - 3)$

 $\{0\}$

11) $14 = -(p - 8)$

 $\{-6\}$

12) $-(7 - 4x) = 9$

 $\{4\}$

13) $-18 - 6k = 6(1 + 3k)$

 $\{-1\}$

14) $5n + 34 = -2(1 - 7n)$

 $\{4\}$

15) $2(4x - 3) - 8 = 4 + 2x$

 $\{3\}$

16) $3n - 5 = -8(6 + 5n)$

 $\{-1\}$

17) $-(1 + 7x) - 6(-7 - x) = 36$

 $\{5\}$

18) $-3(4x + 3) + 4(6x + 1) = 43$

 $\{4\}$

19) $24a - 22 = -4(1 - 6a)$

No solution.

20) $-5(1 - 5x) + 5(-8x - 2) = -4x - 8x$

 $\{-5\}$

Variable and Verbal Expressions

Write each as an algebraic expression.

1) the difference of 10 and 5

2) the quotient of 14 and 7

3) u decreased by 17

4) half of 14

5) x increased by 6

6) the product of x and 7

7) the sum of q and 8

8) 6 squared

9) twice q

10) the product of 8 and 12

11) the quotient of 18 and n

12) n cubed

Write each as a verbal expression.

13) $\frac{x}{2}$

14) $a + 9$

15) $19 - 3$

16) $5n$

17) q^2

18) $\frac{40}{5}$

19) $\frac{a}{8}$

20) $x + 8$

21) $n - 14$

22) 2^2

23) $\frac{60}{5}$

24) $n \cdot 6$

Evaluate each expression.

25) 5 squared

26) the product of 8 and 10

27) 20 decreased by 17

28) the quotient of 96 and 8

29) twice 6

30) 10 less than 17

31) 9 times 5

32) 10 increased by 8

33) 7 squared

34) the product of 4 and 5

Variable and Verbal Expressions

Write each as an algebraic expression.

1) the difference of 10 and 5

$$10 - 5$$

2) the quotient of 14 and 7

$$\frac{14}{7}$$

3) u decreased by 17

$$u - 17$$

4) half of 14

$$\frac{14}{2}$$

5) x increased by 6

$$x + 6$$

6) the product of x and 7

$$x \cdot 7$$

7) the sum of q and 8

$$q + 8$$

8) 6 squared

$$6^2$$

9) twice q

$$2q$$

10) the product of 8 and 12

$$8 \cdot 12$$

11) the quotient of 18 and n

$$\frac{18}{n}$$

12) n cubed

$$n^3$$

Write each as a verbal expression.

13) $\frac{x}{2}$

half of x

14) $a + 9$

a increased by 9

15) $19 - 3$

the difference of 19 and 3

16) $5n$

5 times a number

17) q^2
q squared

18) $\frac{40}{5}$
40 divided by 5

19) $\frac{a}{8}$
a divided by 8

20) $x + 8$
x plus 8

21) $n - 14$
a number minus 14

22) 2^2
2 squared

23) $\frac{60}{5}$
the quotient of 60 and 5

24) $n \cdot 6$
a number times 6

Evaluate each expression.

25) 5 squared
25

26) the product of 8 and 10
80

27) 20 decreased by 17
3

28) the quotient of 96 and 8
12

29) twice 6
12

30) 10 less than 17
7

31) 9 times 5
45

32) 10 increased by 8
18

33) 7 squared
49

34) the product of 4 and 5
20

Line Segments and Measure

Use a ruler to measure the length of each line segment. Measure each segment in inches. Round your measurements to the nearest $\frac{1}{8}$ of an inch.

1) 

2) 

3) 

4) 

5) 

6) 

7) 

8) 

9) 

10) 

11) 

12) 

13) 

14) 

Use a ruler to measure the length of each line segment. Measure each segment in inches. Round your measurements to the nearest $\frac{1}{8}$ of an inch. Also state the maximum error and maximum percent of error in each measurement.


15) 

16) 

17) 

18) 

19) 

20) 

Critical thinking questions:

21) Jessica measures a line segment to the nearest $\frac{1}{8}$ of an inch. She calculates that her measurement has up to 0.1% error in it.


What measure did she find for the line segment?


22) What is the minimum error and minimum percent error in Jessica's measurement?


Line Segments and Measure

Use a ruler to measure the length of each line segment. Measure each segment in inches. Round your measurements to the nearest $\frac{1}{8}$ of an inch.

1) 
3"

2) 
 $\frac{3}{4}$ "


3) 
 $1\frac{1}{4}$ "

4) 
 $1\frac{5}{8}$ "

5) 
 $2\frac{3}{8}$ "

6) 
2"

7) 
 $2\frac{7}{8}$ "

8) 
 $\frac{5}{8}$ "

9) 
 $5\frac{3}{4}$ "

10) 
 $6\frac{1}{8}$ "

11) 
 $4\frac{1}{2}$ "

12) 
7"

13) 
 $4\frac{1}{8}$ "

14) 

$$3\frac{3}{4}$$

Use a ruler to measure the length of each line segment. Measure each segment in inches. Round your measurements to the nearest $\frac{1}{8}$ of an inch. Also state the maximum error and maximum percent of error in each measurement.

15) 

$$2\frac{5}{8}, \frac{1}{16}, 2.4\%$$

16) 

$$\frac{1}{2}, \frac{1}{16}, 12.5\%$$

17) 


$$\frac{7}{8}, \frac{1}{16}, 7.1\%$$

18) 

$$1\frac{1}{4}, \frac{1}{16}, 5\%$$

19) 

$$4\frac{7}{8}, \frac{1}{16}, 1.3\%$$

20) 

$$5\frac{3}{8}, \frac{1}{16}, 1.2\%$$

Critical thinking questions:

21) Jessica measures a line segment to the nearest $\frac{1}{8}$ of an inch. She calculates that her measurement has up to 0.1% error in it.

What measure did she find for the line segment?

$$62\frac{1}{2}$$

22) What is the minimum error and minimum percent error in Jessica's measurement?

0" error; 0% error

Vocabulary

Sum – answer to an addition problem

Difference – answer to a subtraction problem

Product – answer to a multiplication problem

Quotient – answer to a division problem

Factor – a number being multiplied

Coefficient – the constant value of an algebraic expression

Expression – a sum, difference, product or quotient containing variables and/or constants

Equation – a defined relationship between two expressions

Simplify – to do all operations that can be done (if there is no equal sign, you cannot solve for the unknown)

Factoring – to reverse the process of multiplication in order to identify the original factors

Solve – only equations can be solved for a variable

Evaluate – use substitution to rewrite an expression using only constants and find the overall value

Radicand – the expression found under a radical hat

Index – AKA “root” of a radical expression

Constant – a number or symbol that represents a constant value ($\pi \approx 3.14$, $e \approx 2.72$)

Variable – represented with a letter; its value will vary (change)

Integer – (... , -3, -2, -1, 0, 1, 2, 3, ...)

Irrational – a number that *cannot* be expressed as a fraction of integers ($\sqrt{3}$, π , e , ...)

Rational – any number that can be expressed as a *fraction* of integers ($\frac{1}{3}$, 2.5, $\sqrt{25}$, $\frac{\sqrt[3]{27}}{\sqrt{16}}$, ...)