 Name_____

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

$2\frac{7}{40}$

 Name_____

Adding/Subtracting Integers

Date_____ Period____

Find each sum.

1) $(-12) + 7$

2) $(-10) + (-7)$

3) $(-6) + 12$

4) $8 + 7$

5) $3 + 4$

6) $(-45) + 9$

7) $(-1) + (-46)$

8) $(-30) + 10$

9) $(-34) + 50$

10) $38 + (-5)$

Find each difference.

11) $2 - (-2)$

12) $(-1) - 10$

13) $8 - 7$

14) $(-8) - (-6)$

15) $11 - 4$

16) $48 - (-31)$

17) $18 - 41$

18) $(-38) - 30$

19) $(-1) - (-3)$

20) $(-1) - (-40)$

Evaluate each expression.

21) $(-10) - 47$

22) $(-29) - 29$

23) $13 + (-29)$

24) $38 + 22$

25) $(-32) - 44$

26) $(-12) + (-11)$

27) $2 + 15 + 4$

28) $16 + (-13) + 5$

29) $2 - (-9) - 8$

30) $10 + 3 - (-8)$

Kuta Software - Infinite Pre-Algebra

Name_____

Adding/Subtracting Integers

Date_____ Period____

Find each sum.

1) $(-12) + 7$

-5

2) $(-10) + (-7)$

-17

3) $(-6) + 12$

6

4) $8 + 7$

15

5) $3 + 4$

7

6) $(-45) + 9$

-36

7) $(-1) + (-46)$

-47

8) $(-30) + 10$

-20

9) $(-34) + 50$

16

10) $38 + (-5)$

33

Find each difference.

11) $2 - (-2)$

4

12) $(-1) - 10$

-11

13) $8 - 7$

1

14) $(-8) - (-6)$

-2

15) $11 - 4$

7

16) $48 - (-31)$

79

17) $18 - 41$

-23

18) $(-38) - 30$

-68

19) $(-1) - (-3)$

2

20) $(-1) - (-40)$

39

Evaluate each expression.

21) $(-10) - 47$

-57

22) $(-29) - 29$

-58

23) $13 + (-29)$

-16

24) $38 + 22$

60

25) $(-32) - 44$

-76

26) $(-12) + (-11)$

-23

27) $2 + 15 + 4$

21

28) $16 + (-13) + 5$

8

29) $2 - (-9) - 8$

3

30) $10 + 3 - (-8)$

21

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

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

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

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

$4 \div 3 \times \pi \times 12\text{^}3$

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) 3π **>** 6

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

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

9) $\sqrt{30}$ **<** 4π

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

 Name_____

Fractions and Decimals

Date_____ Period____

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

 Name_____

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

$\frac{2}{5}$

 Name_____

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

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

 Name_____

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

 Name_____

Order of Operations

Date_____ Period____

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

Name: _____ Date: _____

Square Roots Worksheet

Solve.

1 a. $\sqrt{16}$

1 b. $\sqrt{144}$

2 a. $\sqrt{81}$

2 b. $\sqrt{100}$

3 a. $\sqrt{9}$

3 b. $\sqrt{225}$

4 a. $\sqrt{256}$

4 b. $\sqrt{289}$

5 a. $\sqrt{25}$

5 b. $\sqrt{196}$

6 a. $\sqrt{0}$

6 b. $\sqrt{49}$

7 a. $\sqrt{4}$

7 b. $\sqrt{121}$

8 a. $\sqrt{36}$

8 b. $\sqrt{64}$

Name: _____ Date: _____

Answer Key

1 a. 4

2 a. 9

3 a. 3

4 a. 16

5 a. 5

6 a. 0

7 a. 2

8 a. 6

1 b. 12

2 b. 10

3 b. 15

4 b. 17

5 b. 14

6 b. 7

7 b. 11

8 b. 8

Kuta Software - Infinite Geometry Name_____

Line Segments and Measure

Date_____ Period____

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?

Kuta Software - Infinite Geometry Name_____

Line Segments and Measure

Date_____ Period____

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) 

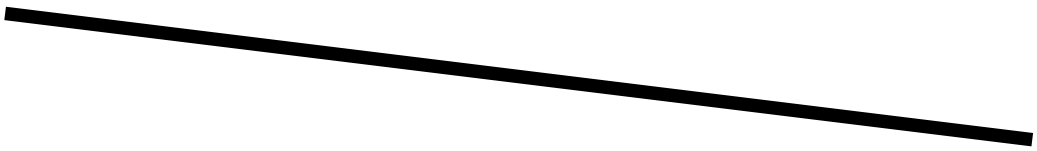
$\frac{7}{8}$", $\frac{1}{16}$", 7.1%

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 ($\sqrt{3}, \pi, e, \dots$)

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