SOL 7.1 Quiz Review

1. **Which set of numbers is written in order from *greatest* to *least*?**

A $\frac{3}{4}$, 4.4×10^1, 72%, 0.67

B 4.4×10^1, $\frac{3}{4}$, 72%, 0.67

C 0.67, 72%, $\frac{3}{4}$, 4.4×10^1

D $\frac{3}{4}$, 0.67, 72%, 4.4×10^1

2. **Look at the number below.**

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

What is this number in its equivalent percent form?

A 9%

B 19%

C 90%

D 900%

3. **Look at this number written in scientific notation.**

$$5.2 \times 10^4$$

Which number is equivalent?

A 520

B 5,200

C 52,000

D 520,000

4. **Daphne wrote the fractional part of the quizzes she answered correctly.**

Quiz	Score
1	$\frac{4}{5}$
2	$\frac{5}{11}$
3	$\frac{3}{7}$
4	$\frac{7}{9}$

Which lists these quiz scores in order from least to greatest?

A. $\frac{3}{7}, \frac{4}{5}, \frac{5}{11}, \frac{7}{9}$

B. $\frac{4}{5}, \frac{3}{7}, \frac{7}{9}, \frac{5}{11}$

C. $\frac{3}{7}, \frac{7}{9}, \frac{5}{11}, \frac{4}{5}$

D. $\frac{3}{7}, \frac{5}{11}, \frac{7}{9}, \frac{4}{5}$

5. **Which is ordered from least to greatest?**

A 0.003, 3%, $\frac{3}{10}$, $3 \cdot 10^1$

B $3 \cdot 10^1$, 0.003, $\frac{3}{10}$, 3%

C $\frac{3}{10}$, 3%, 0.003, $3 \cdot 10^1$

D $3 \cdot 10^1$, 3%, 0.003, $\frac{3}{10}$

6. **Look at the number below.**

65%

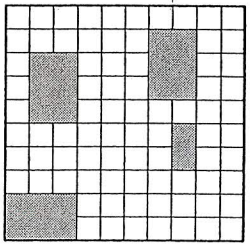
Which number is *larger*?

A. $\frac{1}{2}$

B. 0.56

C. 0.60

D. $\frac{2}{3}$



7. **The shaded part of the square can be expressed by —**

A 0.02

B 20%

C $\frac{1}{4}$

D $\frac{2}{5}$

8. **Which set of numbers is written in order from *least* to *greatest*?**

A. $\frac{8}{9}$, 89%, 0.98, 6.9×10^2

B. 89%, 0.98, $\frac{8}{9}$, 6.9×10^2

C. 0.98, 89%, $\frac{8}{9}$, 6.9×10^2

D. 6.9×10^2, 0.98, 89%, $\frac{8}{9}$

9. **How is the number 3,400,000 written in scientific notation?**

A 34×10^4

B 3.4×10^5

C 3.4×10^6

D 3.4×10^7

10. **Write the number below in scientific notation.**

720

A. 7.2×10^1

B. 7.2×10^2

C. 7.2×10^3

D. 7.2×10^4

11. **Write the number below in scientific notation.**

56,000

A. 56×10^1

B. 56×10^2

C. 5.6×10^3

D. 5.6×10^4

12. **If $0.3 < x < 35\%$, which of the following could be the value of x?**

A $\frac{1}{4}$

B $\frac{1}{3}$

C $\frac{1}{2}$

D 1

13. **Which number is *greatest*?**

A. 1.2×10^2

B. 3.4×10^3

C. 2.3×10^4

D. 1.2×10^5

14. **A store advertisement reads "Going Out of Business Sale. Everything is $\frac{5}{8}$ off." What percent is $\frac{5}{8}$?**

A. 16%

B. 37.5%

C. 58%

D. 62.5%

15. **A business sold for 45 million dollars. What is 45 million expressed in scientific notation?**

A. 4.5×10^6

B. 4.5×10^7

C. 4.5×10^8

D. 4.5×10^9

16. **Which number is *greatest*?**

A 0.95

B $\frac{9}{10}$

C 0.89

D $\frac{89}{100}$

17. **Which statement is *not* true?**

A $2.9 \times 10^4 < 31 \times 10^3$

B $7.2 \times 10^4 = 72 \times 10^3$

C $22 \times 10^5 > 19 \times 10^5$

D $3.6 \times 10^5 = 3.6 \times 10^6$

18. **Which statement is *true*?**

A. $2.2 \times 10^3 > 3.4 \times 10^3$

B. $6.7 \times 10^3 > 7.6 \times 10^4$

C. $9.5 \times 10^2 < 2.3 \times 10^3$

D. $3.2 \times 10^7 > 1.2 \times 10^9$

19. **Which of the following is *not* true?**

A. $\frac{2}{5} = 0.4 = 40\%$

B. $\frac{7}{10} = 0.7 = 70\%$

C. $2\frac{1}{2} = 2.5 = 25\%$

D. $3\frac{3}{8} = 3.375 = 337.5\%$

20. **Which of the following is a true statement?**

A $\frac{2}{5} = 0.40 = 4\%$

B $\frac{2}{5} < 0.40 < 4\%$

C $\frac{2}{5} = 0.40 = 40\%$

D $\frac{2}{5} < 0.40 < 40\%$

21. **Which is less than 1.0618?**

A 1.1061

B 1.0608

C 1.1618

D 1.0628

Comparing and Ordering Decimals - SOL 7.1

Arrange the following from least to greatest.

EX1) 4.12, 41.2, 4.122, 4.012

4.120	b
41.200	d
4.122	c
4.012	a

Answer: 4.012, 4.12, 4.122, 41.2

What if the question is multiple choice answer form? Like on the SOL test?? Then what do I do? EASY! Select answer choice "A" as your jump-off. Line your decimals up, add zeros where necessary, and label in order given to you with abc's. Next, don't forget to go back to answer choices and select the answer that looks like your results from ordering "A."

EX2) *Identify the choice that best completes the statement or answers the question.*

1. Arrange the following from least to greatest.

a. .18, .04, .74, .0975
b. .0975, .18, .04, .74
c. .04, .74, .0975, .18
d. .04, .0975, .18, .74

Answer choice A looks like this ---→ .18, .04, .74, .0975

.18 =	.1800	c
.04 =	.0400	a
.74 =	.7400	d
.0975 =	.0975	b

**line decimals up*
**add zeros until equal in "length"*
**compare and order with abc's*
**check for matching answer*

Answer: .04, .0975, .18, .74 = Answer D!!

Name: _____ Class: _____ Date: _____ ID: A

Comparing and Ordering Decimals SOL 7.1 and 8.1

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. **Arrange the following from least to greatest:**
a. .18, .04, .74, .0975
b. .0975, .18, .04, .74
c. .04, .74, .0975, .18
d. .04, .0975, .18, .74

____ 2. **Arrange the following in order from least to greatest:**
a. 1.5, .07, .65, .532
b. .07, .532, .65, 1.5
c. 1.5, .65, .532, .07
d. .532, 1.5, .65, .07

____ 3. Arrange the following from greatest to least:
a. .72, .5, .012, .5004
b. .5004, .012, .72, .5
c. .72, .5004, .5, .012
d. .012, .5, .5004, .72

____ 4. **Arrange the following from greatest to least:**
a. .391, .39, .309, .039
b. .39, .309, .039, .391
c. .391, .309, .039, .39
d. .039, .391, .39, .039

____ 5. Arrange the following from least to greatest:
a. .52, .502, .62, .602
b. .502, .52, .602, .62
c. .62, .602, .52, .502
d. .52, .62, .502, .602

Completion
Complete each statement.

6. Arrange the following in order from least to greatest:
3.05, 6.75, 8.91, 4.23

7. Arrange the following from greatest to least:
3.12, 31.2, .3122, .312

8. Arrange the following in ascending order:
6.51, 6.05, 6.5, 6.65

9. Arrange the following in descending order:
4.12, 41.2, 4.122, 4.012

10. Arrange the following in ascending order:
5.6, 56, 5.06, 5.61

Comparing and Ordering Decimals SOL 7.1 and 8.1
Answer Section

MULTIPLE CHOICE

1. ANS: D PTS: 1
2. ANS: B PTS: 1
3. ANS: C PTS: 1
4. ANS: A PTS: 1
5. ANS: B PTS: 1

COMPLETION

6. ANS: 3.05, 4.23, 6.75, 8.91

   PTS: 1
7. ANS: 31.2, 3.12, .3122, .312

   PTS: 1
8. ANS: 6.05, 6.5, 6.51, 6.65

   PTS: 1
9. ANS: 41.2, 4.122, 4.12, 4.012

   PTS: 1
10. ANS: 5.06, 5.6, 5.61, 56

    PTS: 1
11. ANS: 2.501, 2.5, .251, .0025

    PTS: 1
12. ANS: .085, 8.085, 8.5, 85

    PTS: 1
13. ANS: 2.0475, 2.475, 24.75, 247.5

    PTS: 1
14. ANS: 1.1, 1.001, .11, .001

    PTS: 1
15. ANS: .714, 7.014, 7.14, 71.4

    PTS: 1

Comparing and Ordering Rational Numbers - SOL 7.1
Guided Practice

1. Which set of numbers is written in order from greatest to least?
   - A) $\frac{3}{4}$, 4.4×10^1, 72%, 0.67
   - B) 4.4×10^1, $\frac{3}{4}$, 72%, 0.67
   - C) 0.67, 72%, $\frac{3}{4}$, 4.4×10^1
   - D) $\frac{3}{4}$, 0.67, 72%, 4.4×10^1

Reminder: Select answer choice A as your starting point.

Original Number	Decimal	Line Up	abcd	
$\frac{3}{4}$				
	44			be careful here!!
		0.72		
			a	don't forget to order!

2. Arrange 3/10, 72.5%, 2^3, 3/2, 1^0, from least to greatest.
   - A) 2^3, 3/2, 3/10, 1^0, 72.5%
   - B) 3/10, 72.5%, 1^0, 3/2, 2^3
   - C) 3/10, 3/2, 72.5%, 1^0, 2^3
   - D) 1^0, 2^3, 3/10, 72.5%, 3/2

Reminder: Select answer choice A as your starting point.

Original Number	Decimal	Line Up	abcd	
2^3				be careful here!
	1.5			
3/10				
		1.000		don't forget to order!
72.5%				

Comparing and Ordering Real Numbers
SOL 7.1

List each set of numbers in order from least to greatest.
*Reminder: Convert all numbers into decimals. Line them up and compare them.

1. $4/5, 2.3 \times 10^0, 87\%, 0.45, 3^2$
   $4/5 =$ _____
   $2.3 \times 10^0 =$ _____
   $87\% =$ _____ = _____
   $0.45 =$ _____
   $3^2 =$ _____

2. $5, 2^3, 98\%, 2.68, \frac{1}{2}$
   $5 =$ _____
   $2^3 =$ _____
   $98\% =$ _____ = _____
   $2.68 =$ _____
   $\frac{1}{2} =$ _____

List each set of numbers in order from greatest to least.

3. $53\%, 5.3, 3^5, 3/5, 5.3 \times 10^1$
   $53\% =$ _____
   $5.3 =$ _____
   $3^5 =$ _____ = _____
   $3/5 =$ _____
   $5.3 \times 10^1 =$ _____

4. $120\%, 1.2 \times 10^2, \frac{3}{4}, 12, 6^2$
   $120\% =$ _____
   $1.2 \times 10^2 =$ _____
   $\frac{3}{4} =$ _____ = _____
   $12 =$ _____
   $6^2 =$ _____

QUIZ

1. Choose the symbol that makes the statement correct.

$$\frac{2}{3} \quad \underline{\quad ? \quad} \quad \frac{3}{5}$$

A <
B >
C =

2. Choose the symbol that makes the statement correct.

$$5.4 \times 10^4 \quad \underline{\quad ? \quad} \quad 5.40 \times 10^4$$

A <
B >
C =

3. Which is equivalent to 25%?

A 2.5

B $\frac{25}{10}$

C $\frac{3}{4}$

D $\frac{1}{4}$

4. Which is NOT equivalent to $\frac{3}{6}$?

A 36%

B 0.5

C 50%

D $\frac{1}{2}$

5. Which shows $\frac{6}{8}$ expressed as a fraction, a decimal, and a percent?

A $\frac{3}{4}$, 0.34, 34%

B $\frac{6}{8}$, 0.68, 68%

C $\frac{3}{4}$, 0.75, 75%

D $\frac{6}{8}$, 0.75, 7.5%

6. What fraction could you place in the blank to make a true statement?

$0.15 <$ ____ $< 85\%$

A $\frac{9}{10}$

B $\frac{7}{8}$

C $\frac{5}{6}$

D $\frac{6}{7}$

7. Arrange $\frac{1}{2}$, 5^1, $\frac{3}{4}$, 0.85, 80%, and 2^2, from least to greatest.

A $\frac{1}{2}, \frac{3}{4}, 2^2, 5^1$, 80%, 0.85

B $\frac{1}{2}, \frac{3}{4}$, 80%, 0.85, $5^1, 2^2$

C 80%, $\frac{1}{2}, \frac{3}{4}, 2^2, 5^1$, 0.85

D $\frac{1}{2}, \frac{3}{4}$, 80%, 0.85, $2^2, 5^1$

8. Which list of fractions is NOT in order from least to greatest?

A $\frac{1}{4}, \frac{1}{3}, \frac{1}{2}$

B $\frac{1}{3}, \frac{3}{4}, \frac{2}{5}$

C $\frac{3}{6}, \frac{6}{8}, \frac{9}{10}$

D $\frac{1}{2}, \frac{4}{5}, \frac{6}{5}$

9. What is the value of 4^3 ?

A 12
B 24
C 64
D 88

10. What is $4 \times 4 \times 5 \times 5$ in exponential form?

A 40
B $4^2 \times 5^2$
C $2^4 \times 2^5$
D 400

11. What is 1.73×10^4 in standard form?

A 173
B 1,730
C 17,300
D 173,000

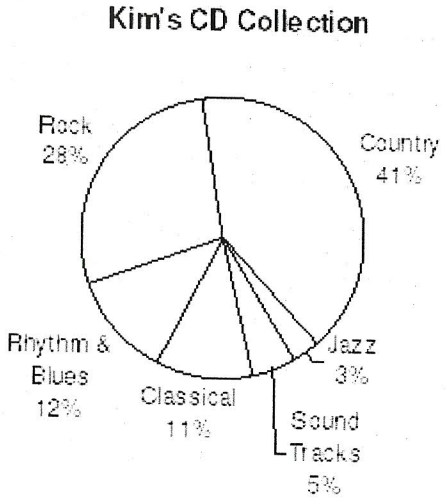
12. What is 12,400,000 in scientific notation?

A 1.24×10^5
B 12.4×10^5
C 1.24×10^6
D 1.24×10^7

13. Which of the following numbers is the largest?

A 7.5×10^4
B 5.6×10^5
C 6.1×10^5
D 6.5×10^5

14. The percent of each type of music in Kim's CD collection is shown in the circle graph. Which type of music is equivalent to $\frac{3}{25}$ of her collection?



A Country
B Rock
C Rhythm and Blues
D Classical

15. If 20% of a cake is left on the plate, what would the fractional equivalent of the piece of cake be?

A $\frac{1}{20}$

B $\frac{10}{20}$

C $\frac{1}{5}$

D $\frac{5}{20}$

16. Susan bought a soccer ball on sale for $25, which was $\frac{1}{5}$ off the original price. What decimal represents the discount she received?

A 0.05
B 0.15
C 0.20
D 0.50

17. A sixth-grade class conducted a survey to find out what kinds of pets their classmates owned. They discovered that 60% of the pets owned by the students were dogs. What fractional part of the pets were not dogs?

A $\frac{2}{5}$

B $\frac{2}{3}$

C $\frac{3}{10}$

D $\frac{3}{5}$

18. Mrs. Smith noticed that $\frac{1}{4}$ of the class had completed the test within 30 minutes. What percent of the class was still working on the test?

A 25%
B 50%
C 75%
D 80%

19. Four students are comparing their heights. Ted's height is $4\frac{1}{4}$ feet, Donald's height is 4.8 feet, Jason's height is $4\frac{1}{3}$ feet, and Justin's height is 4.2 feet. Which student is the shortest?

A Ted
B Donald
C Jason
D Justin

20. A librarian arranged some books on the shelf using the Dewey decimal system. Choose the group of book numbers that is listed in order from greatest to least.

A 726.3, 726.02, 726.101, 726.010
B 726.02, 726.3, 726.101, 726.010
C 726.3, 726.101, 726.02, 726.010
D 726.010, 726.02, 726.101, 726.3

21. Which group of numbers contains an equivalent fraction, decimal, and percent?

A $\frac{1}{2}$, 50.0, 5%

B $\frac{4}{5}$, 0.80, 8%

C $\frac{3}{4}$, 0.75, 75%

D $\frac{1}{4}$, 2.5, 25%

22. In a sample of light bulbs, 14% were defective. What fraction of the bulbs were defective?

A $\frac{1}{14}$

B $\frac{7}{50}$

C $\frac{5}{7}$

D $\frac{43}{50}$

23. Which of the following sets of equivalent fractions, decimals and percents is incorrect **?**

A $0.39 = \frac{39}{100} = 39\%$

B $0.534 = \frac{534}{1000} = 53.4\%$

C $0.9 = \frac{90}{100} = 90\%$

D $6.07 = \frac{607}{1000} = 60.7\%$

24. Which of these is correct?

A $50\% < \frac{3}{4} < 0.74$

B $\frac{3}{4} > 50\% > 0.74$

C $0.74 > 50\% < \frac{3}{4}$

D $50\% < 0.74 > \frac{3}{4}$

25. Arrange the following from largest to smallest.

$\frac{3}{10}$, 72.5%, 2^3, $\frac{3}{2}$, 1^0

A 2^3, $\frac{3}{2}$, $\frac{3}{10}$, 1^0, 72.5%

B 2^3, $\frac{3}{2}$, 1^0, 72.5%, $\frac{3}{10}$

C $\frac{3}{2}$, $\frac{3}{10}$, 72.5%, 1^0, 2^3

D 1^0, 2^3, $\frac{3}{10}$, 72.5%, $\frac{3}{2}$