

# Math Concepts Problem Set 11

Name \_\_\_\_\_

Assigned Thursday 11/21, due Friday 12/6 (Two weeks due to Thanksgiving)

No Work Shown, No Credit Given

Period \_\_\_\_\_

Problems #1-#7 can be completed on this paper. The work for #8-#14 needs to be attached on a separate piece of paper.

1. Simplify each fraction.

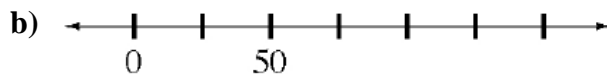
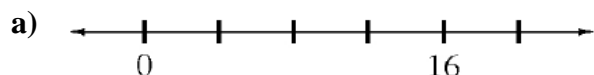
a)  $\frac{15}{40}$

b)  $\frac{18}{30}$

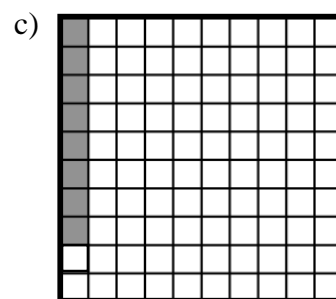
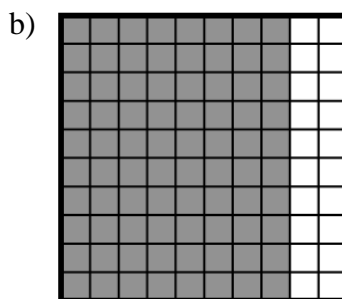
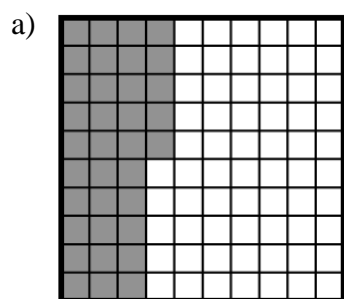
c)  $\frac{18}{27}$

d)  $\frac{8}{48}$

2. Fill in the missing numbers to make the scaling consistent.



3. For each of the 100 blocks below, write the portion as a fraction, as a decimal, and as a percent.



4. If you walk forward 5 feet and then walk backward 5 feet, you will end up exactly where you started. For each of the actions below, describe an action that will get you back where you started.

a) Walk up 10 steps.

b) Earn 8 dollars.

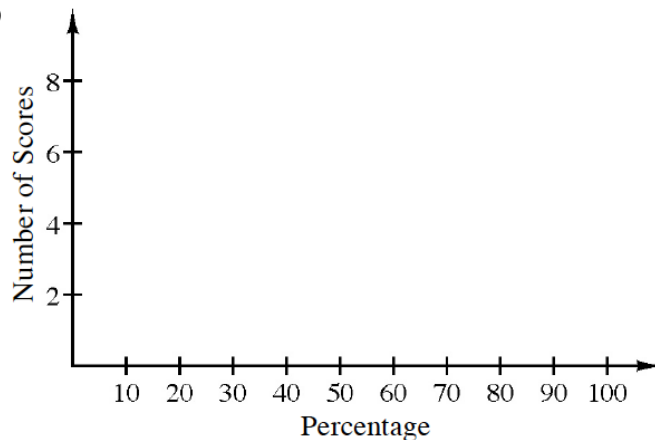
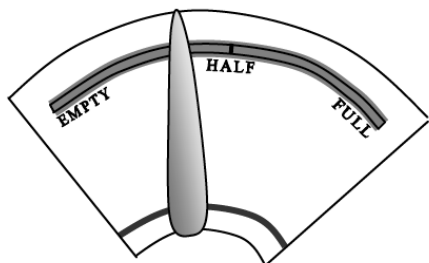
c) It gets 5 degrees warmer.

d) Lose 6 dollars.

e) Travel south 3 kilometers.

f) Run backward 9 steps

5. Use the data and axes below to create a histogram for Mr. Nguyen's class grades: 50, 55, 57, 60, 62, 65, 78, 80, 82, 85, 88, 89, 90, 91, 93, 95, 96, 98, 99



6. a) Estimate the amount of gas left in this car's gas tank with a fraction.

b) Estimate the amount of gas left in this car's gas tank with a percent.

\_\_\_\_\_

7. For each of the following problems, complete the fraction on the right so that the fractions are equal. Be sure to show your work clearly.

a)  $\frac{3}{8} = \frac{\quad}{32}$

b)  $\frac{8}{10} = \frac{\quad}{30}$

c)  $\frac{1}{2} = \frac{\quad}{30}$

d)  $\frac{90}{100} = \frac{\quad}{10}$

----- Please show your work for #8-#14 on a separate piece of paper. -----

8. Maya and Logan each made up a “Guess my Decimal” game just for you. Use their clues to determine the number.

a) Maya gives you this clue: “The decimal I am thinking of is 3 tenths greater than 80%. What is my decimal?” Show your work.

b) Logan continues the game with this clue: “My decimal is 3 hundredths less than 3 tenths.” Use pictures and/or words to show your thinking.

9. Find the following sums or differences. *Show your work!!*

a)  $12.35 + 1.8$     b)  $8.1 - 0.64$     c)  $568 - 34.21$     d)  $0.29 + 0.921$

10. Randall and Stephano work in a restaurant. Randall earned \$27.50 one day, \$25.00 the next day, and \$32.50 on the third day. Stephano works fewer hours, but more days. He earned \$17.50 one day, \$22.50 the next day, \$12.50 the third day, \$15.00 the fourth day, and \$17.00 the fifth day. Who earned the most money? How much more? *Show your work!!*

Day	Randall	Stephano
1	\$27.50	\$17.50
2	\$25.00	\$22.50
3	\$32.50	\$12.50
4		\$15.00
5		\$17.00

11. Given the numbers 18% and 0.7, *explain* which number is larger by using words and/or pictures.

12. Show your work: a)  $45^2$     b)  $4^4$     c)  $8^3$

13. Jing Ya takes the bus across town to school each morning. Last week, he timed his trips and found that the time varies day to day. The times (in minutes) are listed below.

15, 10, 11, 13, 11

a) If you had to use one number to tell someone how long it took Jing Ya to get to school, what would you say?

b) Jing Ya does not want to be late. If he needs to get to school by 8:00 a.m. each day, what is the latest time he should get on the bus? Assume there’s a bus waiting for him at any given time. *Explain* how you got your answer.

14. Find the grey area in square units, for each figure. You can show your work on this page.

