

Each problem is worth 6 points. Show all your work to receive full credit.  
Cell phones and Calculators are NOT allowed.

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1. Write  $7\frac{2}{5}$  as an improper fraction.

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2. Round 7.876 to the nearest tenth.

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Perform the indicated operations and simplify:

3.  $\left(-\frac{1}{5}\right)^2$

4.  $\frac{2}{9} \div \frac{8}{3}$

5.  $\frac{1}{6} + \frac{3}{2}$

6.  $\frac{\frac{a}{20}}{7 - \frac{1}{10}}$

7.  $9.2 \times 0.1$

8.  $-3(4 - 3.7)$

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Simplify each expression:

9.  $\frac{-43}{-1}$

10.  $\frac{0}{-16}$

11.  $\frac{280}{600}$

12.  $\frac{32f^3g^2}{20fg}$

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Solve the following equations:

13.  $\frac{3}{2} - \frac{1}{4} = \frac{x}{8}$

14.  $-0.7x + 1.15 = -0.4x + 2.05$

15.  $\frac{14}{42} = \frac{-5}{y}$

16.  $\frac{-4}{n} = \frac{-0.3}{2.1}$

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17. Find the unit price for “\$3.48 for 4 apples”.

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18. Find the length of the missing side of a right triangle with one leg= 9 units and another leg= 15 units.

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19. Six out of 10 adults in a certain city buy their prescription drugs at large drug stores. If this city has 27,000 adults, how many of these adults would you expect to buy their prescription drugs at large drug stores?

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20. The scale on a map states that 1 centimeter corresponds to 20 kilometers. On the map, two cities are 7 cm apart. Find the actual distance.

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**EXTRA CREDIT.** Each problem is worth 5 points.

1. One pound of an ingredient yields  $2\frac{1}{4}$  cups of the final product. How many pounds of this ingredient will be required by a recipe that yields 6 cups of the final product?

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2. Find the mean, median and mode of the list of numbers:  
21, 32, 42, 42, 43

## Answers for Math 081 Practice Test 2 (Fall 2018, Form AF1)

1.  $\frac{37}{7}$

2. 7.9

3.  $\frac{1}{25}$

4.  $\frac{1}{12}$

5.  $\frac{5}{3}$

6.  $\frac{a}{138}$

7. 0.92

8. -0.9

9. 43

10. 0

11.  $\frac{7}{15}$

12.  $\frac{8f^2g}{5}$

13.  $x = 10$

14.  $x = -3$

15.  $y = -15$

16.  $n = 28$

17. \$0.87 per apple

18.  $c = \sqrt{306}$

19. 16,200 people use that store

20. 140 km

EC1.  $x = \frac{8}{3} lb$

EC2. mean = 36, median = 42, mode = 42