

Math 10 – Final Exam REVIEW

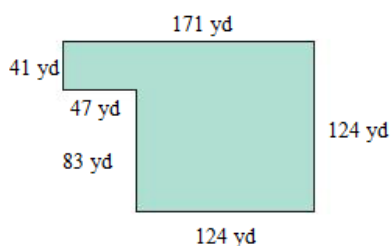
Create your comprehensive study guide – your one page, both sides, hand-written, study guide. As you work through the 3 comprehensive quizzes (26, 27, 28) and encounter a concept you don't remember, write it down on the study guide. There are NO associated practice problems for quizzes 26, 27, 28, so spend the time working through the large comprehensive quizzes.

Then, using your study guide, work through each of these 50 problems on this Final Exam Review. Set aside about 3 hours (it doesn't have to be all at once) to complete these problems. [Hmmm... Could there be a reason why I selected these specific 50 problems?]

Bring your work and your questions to the special review session. (Answers will be posted on the web page after the review session.)

Review your study guide as needed. Bring your study guide, your ID, pencils, and a simple calculator to the Final Exam. The Final will contain 35, two-point questions.

1. Find the perimeter:



2. JG was in charge of mailing batches of letters. So far, the four batches mailed contained 196, 438, 789, and 829 letters. Rounding each batch to the nearest hundred, approximately how many letters (in hundreds) were mailed?
3. Evaluate: $5 \div 0$ and $0 \div 5$
4. EZ has \$617 to spend on chairs. If each chair costs \$79, does EZ have enough to purchase eight chairs? If so, how much money will be left over? If not, how much does EZ need?
5. EZ traveled at an average speed of 58 mph for a trip. If EZ drove 754 miles, how many hours was the trip?

6. Simplify: $\frac{25 - 5}{2^2 + 6}$

7. Simplify: $40 \div 8 \bullet 12$

8. What is the cost of fencing to fence a rectangular backyard that is 50 ft by 75 ft, if the fencing costs \$7 per foot?

9. Rearrange these items from least to greatest. List them in given unsimplified form.

$$-(-15), \quad |-3|^2, \quad 4^2, \quad (-6^2 + 10), \quad -|-3|, \quad 25^0$$

10. EZ had a balance of \$2,047 at the beginning of the week. EZ wrote two checks for \$25 and \$130; made two deposits for \$224 and \$193; and withdrew \$200 at the ATM. What is EZ's balance now?

$$\frac{67 - (-2)(4)}{-11 - 2^2}$$

11. Simplify:

12. Solve the equation for the value of x : $6(x + 3) = -6 + 4x$

13. Solve the equation for the value of x : $35 - (4p - 15) = 17 - 3(p - 2)$

14. EZ takes a two day drive for a total of 396 miles. If EZ drove three times as far the first day as the second day, how far did EZ drive each day?

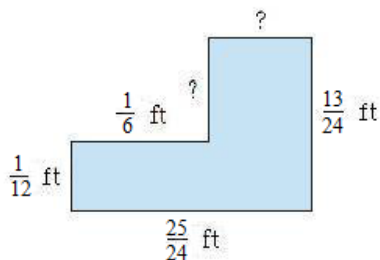
15. EZ worked twice as many hours as TK. BB worked 15 more hours than TK. If they worked a total of 95 hours, how many hours did each one work?

16. EZ completed 32 out of 36 assignments in her course. BB completed 6 out of 27 assignments. What fractional part did each student complete? Which one completed more of the course?

17. A developer sells lots of land in parcels of $\frac{3}{2}$ acre. If the developer has 72 acres, how many parcels of land can be sold?

18. Find the Lowest Common Multiple (LCM) of 9, 12 and 15 .

19. Find the missing dimensions. Write each in lowest terms.



20. Multiply the mixed numbers. Simplify to lowest terms. $2\frac{5}{14} \cdot 1\frac{9}{16} \cdot 3\frac{7}{15}$

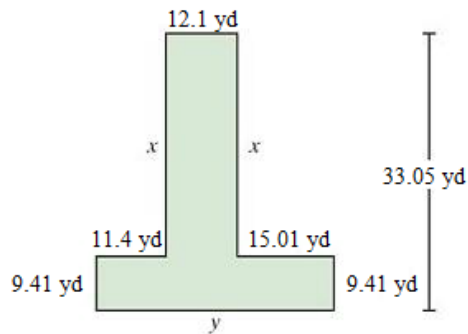
21. Perform the indicated operation. Write the answer in simplified form. $-3\frac{2}{3} - (-\frac{3}{4})$

22. Solve the equation for the value of x : $\frac{1}{8} + \frac{x}{7} = \frac{47}{56}$

23. Solve the equation for the value of x : $8x - \frac{7}{8} = \frac{1}{4}$

24. Round 39.8994 to the nearest hundredths.

25. Find the length of the sides x and y . Then find the perimeter.



26. EZ owes \$42,205.23 on the mortgage for the house. If the monthly payment is \$611.67, how many monthly payments does EZ have to make?

27. A night at a hotel in Candyland costs \$111.15 with a nightly room tax of \$24.00. The hotel also charges \$1.50 per phone call made from the phone in the room. If EZ stays for 7 nights and makes 9 phone calls, how much is EZ's total bill?

28. Multiply the equation by the appropriate value(s) to **rewrite** the equation without decimals:

$$1.6y + 3.2 = 1.85y + 2.2$$

29. Solve the application. EZ bought a popcorn, a soda, and a hotdog at the movies for \$10.57. Popcorn costs \$1 more than a hotdog. A soda costs \$0.93 less than a hotdog. How much is each item?

30. Solve the proportion for the unknown value of x . $\frac{x}{6} = \frac{-39}{18}$

31. At 1:00 pm, the 7 ft tall lamp post casts a 3 ft long shadow. At the same time, the nearby oak tree casts an 18 ft long shadow. How tall is the oak tree?

32. Convert the decimal to a percent: 0.6804 Convert the fraction to a percent: $\frac{7}{8} = \underline{\hspace{2cm}} \%$

33. In a recent survey 44% of the people in the United States say that gas prices have affected the type of vehicle they will buy. In a sample of 300 people who are in the market for a new vehicle, how many would you expect to be influenced by gas prices?

34. Solve for the unknown amount: 0.85% of 500 is what number?

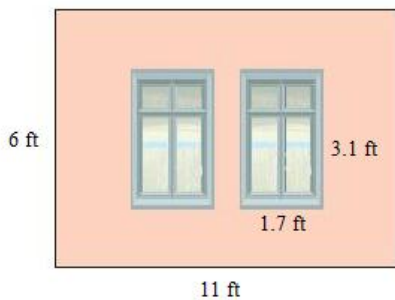
35. EZ gets a 23% discount at the cafeteria at work. If the lunch bill originally comes to \$5.10, what is the price after the discount? (Remember, discounts are rounded down to the nearest penny.)

36. EZ put new insulation in the attic and discovered that the heating bill for December decreased from \$150 to \$120. What is the percent of decrease?

37. Subtract as indicated: 4 ft 2 in. – 1 ft 6 in.

38. The measure of an angle is 26.5° . What is the measure of the angle's complement? What is the measure of the angle's supplement?

39. Find the area of the background (pink-shaded) wall region. (The wall space minus the windows.)



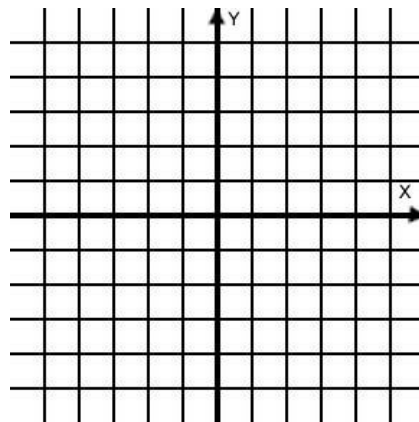
40. A circle has a diameter of 42 cm. What is its area in terms of π ? What is its circumference in terms of π ?

41. Consider the following ticket prices (in dollars) for 10 concerts held this school year.

13, 15, 15, 30, 15, 12, 30, 16, 23, 24

Find the MEAN price, the MEDIAN price, and the MODE price.

42. Graph and label the points corresponding to:

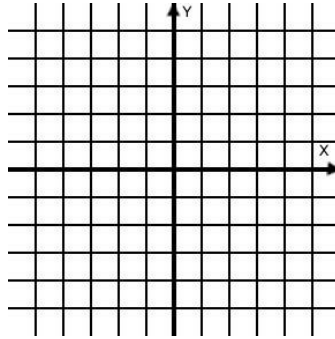


A (4, -2), B (-3, 4), C (0, -4), D (1, 3), E (-2, -3)

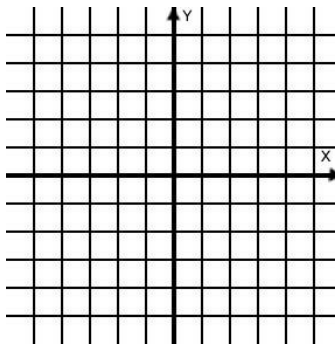
43. Complete the table of values that are solutions for the line: $y = 2x - 4$

Give the x-intercept, the y-intercept, one additional point, and graph the line.

x-intercept (____, ____) y-intercept (____, ____) and graph the line.



44. Graph the lines: $x = 3$ and $y = -4$



45. Perform the indicated operations. $(-6xy^3)(10x^4y^3)$ and $(-6abc)^2$

46. Perform the indicated operations:

$$(-x^3 - 4x^2 + 3x - 9) - (5x^2 - 21) - (-4x^3 + 3x + 9)$$

47. Find the products.

$$(5x + 4)(4x - 5)$$

$$(3x - 8)(3x + 8)$$

48. Factor completely by grouping.

$$20x^2 - 25x + 16x - 20$$

$$8n^2 - 14n + 3$$

49. Factor completely.

$$4n^2 - 32n + 60$$

50. Factor completely.

$$x^2 - 2x - 24$$

$$x^2 + 2x - 24$$

$$x^2 - 10x - 24$$