



Date:

SCHEDULE


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Download Handout #1 From Website & Name It:
3.6.RLastNameUnit3Review.pdf

Learning Goals:

We will use this class period to work on review problems and help prepare for the Unit 3 Test.




Problems With Homework Form
Unit 3, Sec. 5, **DIGITAL TEXTBOOK**, #9-13



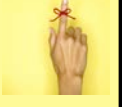
Minds On:
Review Last Night's Homework



Unit 3: Equations
Sec. 3.6.R - Unit 3 Review - Equations



Unit 3 Test




Consolidate:
Bring it all together...

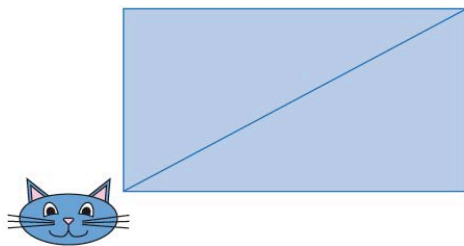
9. The sum of three consecutive integers is 54. Find the numbers.
10. The sum of two consecutive even integers is -134 . Find the numbers.
11. A circular garden has a diameter of 12 m. By how much should the diameter be increased to triple the area of the garden?



12. Refer to question 11.

- a) Solve the problem using a different method.
- b) Compare the two methods. Identify at least one advantage and one disadvantage of each approach.

13. The length of Laurie's rectangular swimming pool is triple its width. The pool covers an area of 192 m^2 .



- a) If Laurie swims across the diagonal and back, how far does she travel?
- b) At the same time Laurie starts swimming, her cat walks one lap around the edge of the pool. Laurie can swim $\frac{3}{4}$ as fast as her cat can walk. Who will return to the starting point first? Justify your answer.



Writing Equations

MIND BUSTER

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The number of hours that were left in the day was one-third of the number of hours already passed.

How many hours were left in the day?

Solve this problem in at least two ways...





Tasks:

1. Find each root.

a) $8m + 9 = -15$

b) $4 + 3c = -12$

2. Solve, then check.

a) $7 - 6s = 19$

3. Find the root, then check.

a) $3(4d - 7) - 6 = 2(d + 2) - 1$





4. The perimeter of an isosceles triangle is 35 cm. The length of each equal side is double the length of the base. Find the side lengths of the triangle.

5. Solve and check the following equations:

a) $\frac{2b - 4}{2} = -12$

b) $\frac{3}{2}(2j - 4) = \frac{4}{5}(j - 6)$





6. Write an equation for each phrase and solve.

a) 4 less than triple a number is 23

b) the sum of double a number and 6 is 16

c) half a number, less 3, is 8

d) the area decreased by 7 is 14



1. Solve using pencil and paper.

a) $8 + m = -2$

b) $k - 7 = -11$

c) $3x = 18$

d) $\frac{h}{5} = -4$

2. Find the root of each equation using pencil and paper. Check each answer.

a) $2y - 7 = 13$

b) $4 + 5v = -21$

c) $9 - 2x = -1$

d) $-3s - 6 = 9$

4. Cindy has \$2.50 to spend on milk and candy. The milk costs \$0.70. Her favourite candies cost \$0.12 each.

a) Write an equation that models the number of candies that Cindy can afford.

b) Solve the equation.





5. Solve using ~~pencil and paper~~.

a) $3 + 2m + 6m = 19$

b) $7w - 4 + w + 12 = 0$

c) $3x + 7 = 2x - 3$

d) $5w - 6 = -4w + 3$

7. Find the root of each equation using pencil and paper. Check each solution.

a) $4 - (3p - 2) = p - 10$

b) $3 + (h - 2) = 5 + 3h$

c) $2(n - 8) = -4(2n - 1)$

d) $3(2k - 5) - k = 4 - (3k + 7)$

8. A triangle has angle measures that are related as follows:

- the largest angle is eight times the smallest angle
- the middle angle is triple the smallest angle



Find the measures of the angles.



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9. Find the root of each equation using pencil and paper. Check each solution.

a) $\frac{1}{3}(x - 1) = 4$

b) $\frac{b - 4}{3} = -5$

c) $3 = \frac{3}{4}(p - 1)$

d) $-3 = \frac{5x + 4}{7}$

11. Find the solution to each equation.

a) $\frac{y - 8}{3} = \frac{y + 4}{2}$

b) $\frac{2}{3}(w - 5) = \frac{3}{4}(w + 2)$

c) $\frac{c + 3}{4} = \frac{c - 5}{6}$

d) $\frac{2}{5}(x + 3) = \frac{1}{2}(x - 5)$

12. Rearrange each formula to isolate the variable indicated.

a) $P = a + b + c$ for a (perimeter of a triangle)

b) $C = \pi d$ for d (circumference of a circle)

c) $a = \frac{F}{m}$ for F (force)

d) $d = mt + b$ for t (distance-time relationships)





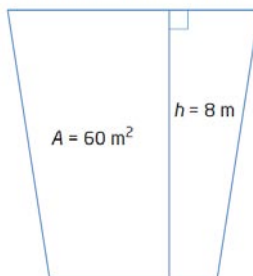
13. The power, P , in an electric circuit is related to the current, I , and resistance, R , by the formula $P = I^2R$.
- a) Find the power, in watts (W), when the current is 0.5 A (amperes) and the resistance is 600Ω (ohms).
 - b) What is the resistance of a circuit that uses 500 W of power with a current of 2 A?
 - c) The resistance in a circuit is 4Ω . The same circuit uses 100 W of power. Find the current in the circuit.

-
14. The total of three sisters' ages is 39. Dina is half as old as Michelle and 3 years younger than Juliette. How old are the sisters?



15. Sven sells hamburgers at a ballpark. He earns \$7.50/h, plus \$0.40 for each hamburger he sells.
- How much will Sven earn in a 3-h shift if he sells 24 hamburgers?
 - How many hamburgers must Sven sell to earn \$100 in a 6.5-h shift?

16. Hitori's rock garden is in the shape of a trapezoid. The garden has an area of 60 m^2 and a depth of 8 m. The front width is double the back width.



Without changing the front or back widths, by how much must Hitori increase the depth of his garden to double its area?