DIGITAL

NAME	DATE
Module Test A	Module 3
1. List the property of equality used in each	step to solve the following problem.
$7m + 6 = -5m + \frac{16}{2}$	Given
a. $14m + 12 = -10m + 16$	Multiplication Property of Equality
b. $24m + 12 = 16$	Addition Property of Equality
c. $24m = 4$	Subtraction Property of Equality
d. $m = \frac{4}{24} \text{ or } \frac{1}{6}$	Division Property of Equality
2. Solve the following equations by inspection	on.
a. 4x = 28 <u>x</u> = 7	 b. <i>b</i> − 19 = 23 b = 42
c. $\frac{k}{2} = 14$ <u>k = 28</u>	d. <i>M</i> + 12 = 55 <u>M = 43</u>
3. Rewrite the following equations for the re- a. $g = h + 3k$ for k $\frac{k = \frac{g - h}{3}}{r}$ c. $V = \frac{1}{3}\pi r$ for r $\frac{r = \frac{3V}{\pi}}{r}$	b. $3Rj = k + 28$ for $j = \frac{k + 28}{3R}$ d. $6x + 7 = 8y$ for $x = \frac{8y - 7}{6}$
4. Determine if the following equations are one-step, two-step, or multi-step equations. Solve the equations to find the value of the variable.	
a. $3m + 4m = -7m + 14$	b. 4 <i>j</i> = 88
multi-step; $m = 1$	one-step; <i>j</i> = 22
c. $6Q = 2Q + 8$ two-step; $Q = 2$	d. $3R + R - 32 = 21 + 7R$ multi-step; $R = \frac{-53}{3}$ or $-17\frac{2}{3}$
5. List the property of equality used below.	
a. 16 = 16	b. If $T = B$ and $B = C$, then $T = C$.
Reflexive Property of Equality	Transitive Property of Equality
c. If $9 - y^2 = 3x$, then $3x = 9 - y^2$.	d. If $9 = 4 + 5$, then $\frac{9}{6} = \frac{4+5}{6}$.
Symmetric Property of Equality	Division Property of Equality

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Solve the following linear equations.	12 5
6. $14m = 8 \frac{m = \frac{7}{7}}{7}$	7. $6j + 7j = 5j - 13$ $\frac{j = \frac{-13}{8} = -1\frac{5}{8}}{1}$
8. $22 = 17 + 5x $ x = 1	9. $11h - 7 = -8$ $\frac{h = \frac{-1}{11}}{11}$
10. $2Q = \frac{3}{7}$ $\frac{Q = \frac{3}{14}}{14}$	
Are the following pairs of statements true or false	?
11. $r = 4 + t$ and $t = r + 4$	12. $4T = 2(5 + T)$ and $T = 5$
False	True
13. $8L = 2 + 6W$ and $2 = 8L - 6W$	14. $A = 2\pi r$ and $\pi = \frac{A}{2r}$
True	True
15. $6 - p = 32 + p$ and $p = 14$	
False	
True or False, $x = 5$ is a solution to the following	equations.
16. $2x + 17 = 27$	17. $3x + 14 = 7x - 7$
True	False
18. $\frac{17}{x} = 3 + \frac{2}{5}$	19. $2 + 2x = \frac{45}{x} + 3$
True	True
20. $26 = 5x + 2 - 3$	
False	
Answer the following questions:	
16. Explain why it is sometimes useful to rewrite the following formula: $P = 2l + 2w$	17. Give an example of the Transitive Property of Equality:

By rewriting the given formula, you can

solve for I or w as needed.

If a = b and b = c, then a = c.

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