Alg 1 Review Ch. 1

Quiz today 1.7
Test Wed. Ch. 1
Whiteboards

Write an algebraic expression for each verbal expression.

1. six more than a number $n + 6$
2. twelve less than the product of three and a number $3n - 12$
3. four divided by the difference between a number and seven $\frac{4}{n-7}$ $4 \div (n-7)$

Evaluate each expression.

4. $32 \div 4 + 2^3 - 3$ $8 + 8 + -3 = 13$

5. $\frac{(2 \cdot 4)^2}{7 + 3^2}$ $\frac{8^2}{7+9} = \frac{64}{16}$ 4

6. MULTIPLE CHOICE Find the value of the expression $a^2 + 2ab + b^2$ if $a = 6$ and $b = 4$.

A 68

B 92

C 100

D 121

$6 \cdot 6 + 2 \cdot 6 \cdot 4 + 4 \cdot 4$

$36 + 48 + 16$

Evaluate each expression. Name the property used in each step.

7. $13 + (16 - 16) = 13$

8. $\frac{2}{9}[9 \div (7 \cdot 5)]$

$\frac{2}{9}(4.5) = 1$

9. $37 + 29 + 13 + 21$

$50 + 50$

100

Rewrite each expression using the Distributive Property. Then simplify.

10. $4(x + 3)$

$4x + 12$

11. $(5p - 2)(-3)$

$-3(5p - 2)$

$-15p + 6$

12. MOVIE TICKETS A company operates three movie theaters. The chart shows the typical number of tickets sold each week at the three locations. Write and evaluate an expression for the total typical number of tickets sold by all three locations in four weeks.

Location	Tickets Sold
A	438
B	374
C	512

$438 + 374 + 512$

5296

$4(438 + 374 + 512)$

5296

Find the solution of each equation if the replacement sets are x: {1, 3, 5, 7, 9} and y: {2, 4, 6, 8, 10}.

13. $3x - 9 = 12$

14. $y^2 - 5y - 11 = 13$

$3 \cdot 1 - 9 = 12$

$3 - 9 = 12$

$3 \cdot 3 - 9 = 12$

$9 - 9 = 12$

$8^2 - 5 \cdot 8 - 11 = 13$

$64 - 40 - 11 = 13$

$3 \cdot 5 - 9 = 12$

$15 - 9 = 12$

$3 \cdot 7 - 9 = 12$

$21 - 9 = 12$

$10^2 - 5 \cdot 10 - 11 = 13$

$100 - 50 - 11 = 13$

$2^2 - 5 \cdot 2 - 11 = 13$

$4 - 10 - 11 = 13$

$4^2 - 5 \cdot 4 - 11 = 13$

$16 - 20 - 11 = 13$

$6^2 - 5 \cdot 6 - 11 = 13$

$36 - 30 - 11 = 13$

15. CELL PHONES The ABC Cell Phone Company offers a plan that includes a flat fee of $29 per month plus a $0.12 charge per minute. Write an equation to find C, the total monthly cost for m minutes. Then solve the equation for $m = 50$.

$C = 29 + 0.12m$

$= 29 + 0.12 \cdot 50$

$= 29 + 6$

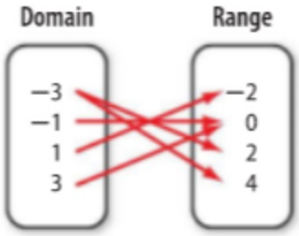
$35

Express the relation shown in each table, mapping or graph as a set of ordered pairs.

16.

x	y
−2	4
1	2
3	0
4	−2

17.



$(-3,2)$ $(-1,0)$
$(-3,4)$ $(1,-2)$
$(3,0)$

D $-3,-1,1,3$

R $2,4,0,-2$

19. Determine whether the relation $\{(2, 3), (-1, 3), (0, 4), (3, 2), (-2, 3)\}$ is a function.

If $f(x) = 5 - 2x$ and $g(x) = x^2 + 7x$, find each value.

20. $g(3)$

21. $f(-6y)$

$(3)^2 + 7(3)$

$9 + 21$

30

$5 - 2(-6y)$

$5 + 12y$