Alg 1 Sec 1-5 B Name _____

Determine whether the given number is a solution of the equation.

48. $x + 6 = 15; 9$ **49.** $12 + y = 26; 14$ **50.** $2t - 10 = 4; 3$

51. $3r + 7 = -5; 2$ **52.** $6 + 4m = 18; 3$ **53.** $-5 + 2p = -11; -3$

5. MULTIPLE CHOICE Solve $\frac{d+5}{10} = 2$.

A 10 B 15 C 20 D 25

10. RECYCLING San Francisco has a recycling facility that accepts unused paint. Volunteers blend and mix the paint and give it away in 5-gallon buckets. Write and solve an equation to find the number of buckets of paint given away from the 30,000 gallons that are donated.

33. SCHOOL A conference room can seat a maximum of 85 people. The principal and two counselors need to meet with the school's juniors to discuss college admissions. If each student must bring a parent with them, how many students can attend each meeting? Assume that each student has a unique set of parents.

34. CCSS MODELING The perimeter of a regular octagon is 128 inches. Find the length of each side.

Alg 1 Sec 1-5B Name Key

Determine whether the given number is a solution of the equation.

48. $x + 6 = 15; 9$ 9+6=15 yes

49. $12 + y = 26; 14$ 12+14=26 yes

50. $2t - 10 = 4; 3$ 2·3-10≠4 NO

51. $3r + 7 = -5; 2$ 3·2+7=-5, 6+7≠-5, 13≠-5 NO

52. $6 + 4m = 18; 3$ 6+4·3=18 yes

53. $-5 + 2p = -11; -3$ -5+2·-3=-11 yes

5. MULTIPLE CHOICE Solve $\frac{d+5}{10} = 2$.

A 10 $\frac{10+5}{10}$

B 15 $\frac{15+5}{10}$

C 20 $\frac{20+5}{10}$

D 25 $\frac{25+5}{10}$

10. RECYCLING San Francisco has a recycling facility that accepts unused paint. Volunteers blend and mix the paint and give it away in 5-gallon buckets. Write and solve an equation to find the number of buckets of paint given away from the 30,000 gallons that are donated.

$\frac{\text{donated gallons}}{\text{gallon buckets}} = \text{total given away}$ $\frac{30{,}000}{5} = 6000$

33. SCHOOL A conference room can seat a maximum of 85 people. The principal and two counselors need to meet with the school's juniors to discuss college admissions. If each student must bring a parent with them, how many students can attend each meeting? Assume that each student has a unique set of parents.

x = junior

x + 1 = junior + parent

~~1 principal + 2 counselors + x juniors + x+1 parents = 85~~

85 - 3 = 82, ~~x + x + 1 + 1 + 2 = 85~~

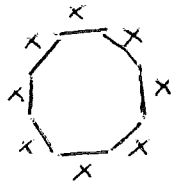
82 ÷ 2 = 41

82 ÷ 3 = 27.3

~~2x + 4 = 85~~

~~2x = 81~~ ~~x = 40.5~~ 40 students can attend

34. CCSS MODELING The perimeter of a regular octagon is 128 inches. Find the length of each side.



8 sides all = 128

$\frac{8x}{8} = \frac{128}{8}$ $x = 16$