

Section 7.5

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2.

$$2(x-3)=2$$

$$2x + 6 - 6 = 2 + 6$$

$$\frac{2x}{2} = \frac{8}{2}$$

$$x = 4$$

Nov. 8

5. $3(x+2) = -9$

$$3x + 6 = -9$$

$$\frac{3x}{3} = \frac{-15}{3}$$

$$x = -5$$

7.

$$2(3x+4) = 14$$

$$6x + 8 = 14 - 8$$

$$\frac{6x}{6} = \frac{6}{6}$$

$$x = 1$$

L.S.

$$2(3x+4)$$

$$2[3(1)+4]$$

$$2(3+4)$$

$$2(7)$$

$$14$$

R.S.

$$14$$

✓

$$11. \quad -24 = 4(x+3)$$

$$-24 = 4x + 12$$

$$\frac{-36}{4} = \frac{4x}{4}$$

$$x = -9$$

	RS
-24	$4(x+3)$
✓	$4(-9+3)$
	$4(-6)$
	-24

14.

$$3(x+1) + 10 = 8 - 2x$$

$$3x + 3 + 10 = 8 - 2x$$

$$3x + 13 = 8 - 2x$$

$$5x + 13 = 8 - 13$$

$$5x = -5$$

$$x = -1$$

15.

$$8 - 3x = 4(x - 3) + 6$$

$$8 - 3x = 4x - 12 + 6$$

$$8 - 3x = 4x - 6 - 8$$

$$\frac{-7x}{-7} = \frac{-14}{-7}$$

$$x = 2$$

17.

$$5(2x-3) - 2(x-2) + 5$$

$$10x - 15 = 2x - 4 + 5$$

$$10x - 15 = 2x + 1$$

$$8x - 15 = 1 + 15$$

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

$$x = 2$$

20.

$$4(n+7) = -44 + 2(n+6)$$

$$4n + 28 = -44 + 2n + 12$$

$$4n + 28 = -32 + 2n$$

$$2n + 28 = -32 - 28$$

$$\frac{2n}{2} = \frac{-60}{2}$$

$$n = -30$$

24.

$$4(m-2) - 1(m+3) = m-1$$

$$4m - 8 - m - 3 = m - 1$$

$$3m - 11 = m - 1$$

$$2m - 11 = -1 + 11$$

$$\frac{2m}{2} = \frac{10}{2}$$

$$m = 5$$

$$25. \quad 4(n-7) - 2(n+3) = -15n$$

$$(4n) - 28 - 2n - 6 = -15n$$

$$2n - 34 = -15n - 2n$$

$$\frac{-34}{-17} = \frac{-17n}{-17}$$

$$n = 2$$

$$27. \quad 3(2x+1) - 1(x-2) = 2(x+4)$$

$$\textcircled{6x} + \textcircled{3} - \textcircled{x} + \textcircled{2} = 2x + 8$$

$$5x + 5 = 2x + 8$$

$$3x + 5 = 8 - 5$$

$$\frac{3x}{3} = \frac{3}{3}$$

$$x = 1$$

$$30. \quad 7(x-1) - 2(x-6) - 2(x-5) + 6$$

$$7x - 7 - 2x + 12 - 2x - 10 + 6$$

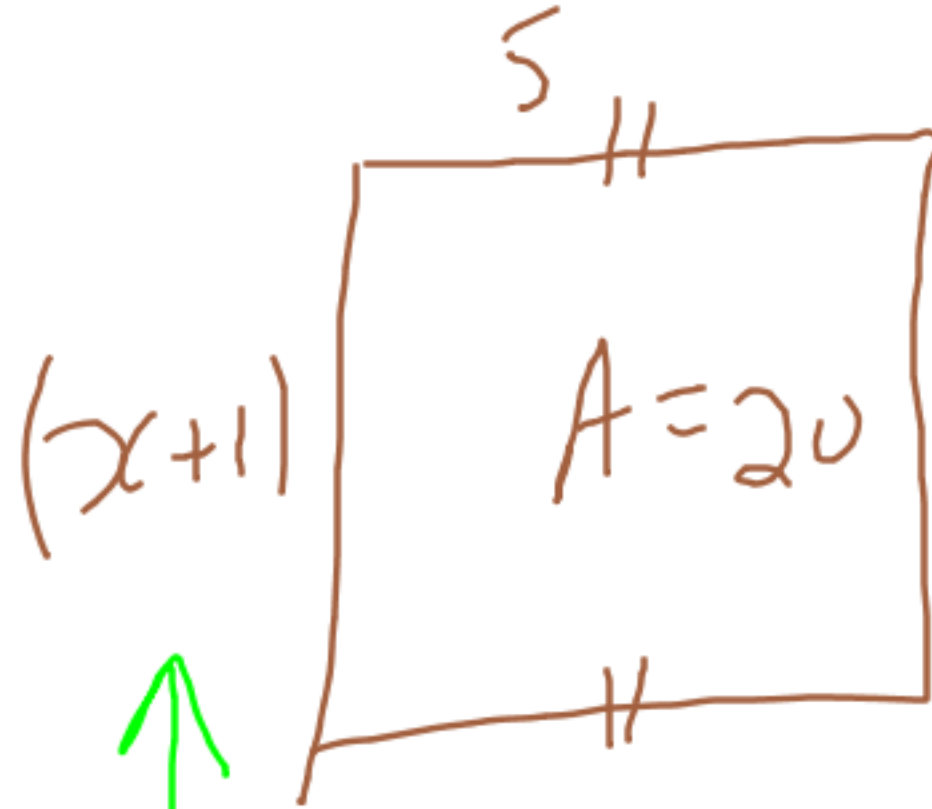
$$5x + 5 = 2x - 4$$

$$3x + 5 = -4$$

$$3x = -9$$

$$x = -3$$

32.



$\therefore$ the width is
 $x+1 = 4$ units

$$\begin{aligned} 5(x+1) &= 20 \\ 5x+5 &= 20 \\ 5x &= 15 \\ x &= 3 \end{aligned}$$

$$28 = -4r - 5(1 - 3r)$$

$$28 \stackrel{+5}{=} -4r - 5 + 15r$$

$$28 = -5 + 11r$$

$$\frac{33}{11} = \frac{11r}{11}$$

$$r = 3$$

LS	RS
28	$-4r - 5(1 - 3r)$
	$-4(3) - 5(1 - 3(3))$
	$-12 - 5(1 - 9)$
	$-12 - 5(-8)$
	$-12 + 40$
	28

✓

Homework

p. 358 Solving
Equations with
Brackets