Solving Equations Extra Practice

Multiple Choice

 1.	A swimmer travels 40 m/min. The distance he can long will it take the swimmer to travel 520 m?	n s	wim can be modelled with the formula $d = 40t$. How
	A. 12 min		13 min
	B. 15 min D).	16 min
 2.	Which operation should be used to isolate the var $3s = -12$	riat	ble in this equation?
	A. add 12 C	2.	multiply by 3
	B. divide by 3 D).	subtract 12
 3.	Which operation should be used to solve this equa	atio	on?
	$\frac{\kappa}{-8} = -3$		
	A. divide by –3 C	2.	multiply by –3
	B. divide by –8 D).	multiply by –8
 4.	A speed skater travels 800 m/min. The distance sl with the formula $d = 800t$. How long will it take h	he her	can skate in a given amount of time can be modelled to travel 4 km?
	A. 200 min C		5 min
	B. 50 min D).	1 min
 5.	The length of a Bengal tiger is five times the leng what is the length of the Bengal tiger?	gth	of a domestic cat. If a domestic cat is 60 cm in length,
	A. 5 cm C	2.	60 cm
	B. 12 cm D).	300 cm
 6.	Which equation represents the statement "five les	ss t	han twice a number is eleven"?
	A. $5 - 2n = 11$ C	2.	11(n-2) = 5
	B. $2n - 5 = 11$ D).	5n - 2 = 11
 7.	For the equation $3x - 7 = 14$, which operation sho	oul	d you undo first?
	A. subtraction C		division
	B. multiplication D).	addition
 8.	For the equation $3x - 7 = 14$, which operation sho	oul	d you undo second?
	A. addition C		multiplication
	B. division D).	subtraction
 9.	The total delivery cost on a shipment of furniture furniture being delivered, and c is the total cost. H A. \$22.00 C	is Hov 2.	c = 3m + 4, where <i>m</i> represents the number of pieces of w much would it cost to deliver six pieces of furniture? \$31.00
	B. \$39.00 D).	\$37.00

10.	Solve the equation $12y + 20 = 44$.		
	A. $y = 2$	C.	<i>y</i> = 20
	B. $y = 12$	D.	y = 24

11. Thomas has scored 45 points in 12 hockey games this season. His goal for the season is to score 58 points. Which equation can be used to find the number of points, *p*, that Thomas must average in his last three games to reach his goal?

A.	45p + 3 = 58	C.	45 - 3p = 58
B.	45 + 3p = 58	D.	58 + 3p = 45

12. Jennie is selling her CD player and 14 CDs. She is selling the CD player and the CDs for \$332.00 altogether. If the CD player costs \$150, what is the value of each CD?

A.	\$13	С.	\$15
B.	\$14	D.	\$17

13. The phrase "3 times a number, increased by 4, equals 15" can be modelled with the equation

A.	3n - 4 = 15	C.	$\frac{n}{3} - 4 = 15$
B.	$\frac{n}{3} + 4 = 15$	D.	3n + 4 = 15

14. A golf team took half their supply of golf balls to a tournament. The team lost four balls during the tournament. At the end of the tournament the team took ten golf balls home. What equation could be used to model this situation?

A.
$$\frac{b}{2} - 4 = 10$$
C. $\frac{b}{2} - 10 = 4$ B. $\frac{b}{2} + 4 = 10$ D. $\frac{b}{2} + 10 = 4$

15. A golf team took half their supply of golf balls to a tournament. The team lost four balls during the tournament. At the end of the tournament the team took ten golf balls home. What was the original number of golf balls the team had before leaving for the tournament?

А.	12	С.	20
B.	16	D.	28

16. Jessica has 4 more hockey cards than one third the number of cards that David owns. If Jessica has 12 hockey cards, what is an equation that models this situation?

A.	$\frac{d}{3} + 12 = 4$	C.	$\frac{d}{3} + 4 = 12$
B.	$\frac{d}{3} = 12$	D.	$\frac{d}{3} - 4 = 12$

_____ 17. Jessica has four more hockey cards than one third the number of cards that David owns. If Jessica has 12 hockey cards, how many does David have?

A.	45	С.	9
B.	24	D.	4

 18.	What is the first operation necessary to solve the	ne eq	uation $\frac{x}{3} + 5 = -7?$
	A. subtract 5B. multiply by 3	C. D.	divide by 3 add 5
 19.	The number of hours that Blaine worked is five	e mo	re than one quarter the hours worked by Steve. Blaine
	worked 25 hours. This situation can be represent	nted	by the equation $\frac{h}{4} + 5 = 25$. How many hours did Steve
	work? A. 4 B. 20	C. D.	25 80
 20.	The number of hours that Blaine worked is five worked 25 hours. How many hours did Blaine A. 5 B. 6.25	e mo work C. D.	re than one quarter the hours worked by Steve. Blaine x? 11.25 25
 21.	What is the solution to the equation $4 + \frac{n}{3} = -2$??	
	A. 18 B. 10	C. D.	-10 -18
 22.	What is the solution to the equation $4(x-2) =$ A. 12 B. 6	16? C. D.	-6 -12
 23.	What is the solution to the equation $2(x+2) =$ A. -2 B. -3	–4? C. D.	-4 -6
 24.	Solve $-5(x+5) = -25$. A. 0 B. -1	C. D.	-5 -25
 25.	When solving the equation $-2(x+6) = 4$ in the be performed? A. subtract 6	e mos C.	st efficient way, what is the first operation that should divide by -2
	B. multiply by -2	D.	add 6
 26.	Julia made a mistake solving an equation. At we $A = 3(x-5) = 21$	hat s	step did she make her mistake?
	B $(x-5) = \frac{21}{3}$		
	C $(x-5)+5=7-5$		
	D $x = -2$	C	C
	B. B	D.	D

Matching

Match the correct solution with the corresponding equation.

A.	-25	E.	8
B.	-24	F.	24
C.	-14	G.	28
D.	-4	H.	32

- 27. $\frac{n}{4} = 7$
- 28. 3(x-4) = 12
- 29. $\frac{t}{6} + 2 = -2$
- 30. 4x = 96
- 31. 2(p-3) = -14

Short Answer: Answer on a seperate piece of paper.

- 32. Todd is solving the equation t + 14 = 28. What is wrong with his solution? t + 14 = 28 t + 14 - 28 = 28 + 28t - 14 = 0
- 33. Demi charges \$12 to cut and rake one lawn. She earned \$1176 for the summer.a) Model this situation using an equation.b) Solve the equation to determine how many lawns she cut and raked over the summer.
- 34. Sumiko bought one pair of jeans for \$10.00 and several shirts for \$14.00 each. If Sumiko spent a total of \$66.00, how many shirts did she buy?
- 35. Solve the equation. Verify your answer. 2x + 3.5 = 11.5
- 36. Describe a situation that can be modelled with the equation 5x + 15 = 25.
- 37. A rectangular garden has a length of 24 m and a perimeter of 92 m. Write and solve an equation to determine the width, *w*. Verify your solution.
- 38. When a sum of money is divided equally among three people, each person receives \$25. Write and solve an equation to determine the value of the sum of money. Verify your solution.

Solving Equations Extra Practice Answer Section

MULTIPLE CHOICE

1.	ANS:	С	OBJ:	Section 10.1
2.	ANS:	В	OBJ:	Section 10.1
3.	ANS:	D	OBJ:	Section 10.1
4.	ANS:	С	OBJ:	Section 10.1
5.	ANS:	D	OBJ:	Section 10.1
6.	ANS:	В	OBJ:	Section 10.2
7.	ANS:	А	OBJ:	Section 10.2
8.	ANS:	С	OBJ:	Section 10.2
9.	ANS:	А	OBJ:	Section 10.2
10.	ANS:	А	OBJ:	Section 10.2
11.	ANS:	В	OBJ:	Section 10.2
12.	ANS:	А	OBJ:	Section 10.2
13.	ANS:	D	OBJ:	Section 10.2
14.	ANS:	А	OBJ:	Section 10.3
15.	ANS:	D	OBJ:	Section 10.3
16.	ANS:	С	OBJ:	Section 10.3
17.	ANS:	В	OBJ:	Section 10.3
18.	ANS:	А	OBJ:	Section 10.3
19.	ANS:	D	OBJ:	Section 10.3
20.	ANS:	С	OBJ:	Section 10.3
21.	ANS:	D	OBJ:	Section 10.3
22.	ANS:	В	OBJ:	Section 10.4
23.	ANS:	С	OBJ:	Section 10.4
24.	ANS:	А	OBJ:	Section 10.4
25.	ANS:	С	OBJ:	Section 10.4
26.	ANS:	С	OBJ:	Section 10.4

MATCHING

27.	ANS:	G	OBJ:	Section 10.1
28.	ANS:	E	OBJ:	Section 10.4
29.	ANS:	В	OBJ:	Section 10.3
30.	ANS:	F	OBJ:	Section 10.1
31.	ANS:	D	OBJ:	Section 10.4

SHORT ANSWER

32. ANS:

Answers may vary. Example: Todd subtracted 28 from both sides instead of subtracting 14 from both sides.

OBJ: Section 10.2

33. ANS:

a) 12x = 1176

b) 12x = 1176 $x = \frac{1176}{12}$

x = 98

Demi cut and raked 98 lawns over the summer.

OBJ: Section 10.1

34. ANS:

14s + 10 = 6614s = 56 $s = \frac{56}{14}$ s = 4

Sumiko bought four shirts.

OBJ: Section 10.2

35. ANS:

x = 4Verify: LS = 2(4) + 3.5 = 11.5 RS = 11.5 LS = RS

OBJ: Section 10.2

36. ANS:

Answers may vary. Example: Frank spent a total of \$25 on five pairs of socks and a baseball cap. If the cap cost \$15, how much did each pair of socks cost?

OBJ: Section 10.2

37. ANS: 2w + 2(24) = 922w + 48 = 922w = 44w = 22Verify: P = 2(l+w)P = 2(24 + 22)P = 2(46)P = 92Given perimeter = 92Calculated perimeter = Given perimeter The width of the garden is 22 m. OBJ: Section 10.2 38. ANS: $\frac{x}{3} = 25$ *x* = 75 Verify: $75 \div 3 = 25$ Each person received \$25. Calculated division = Given division The sum is \$75.

OBJ: Section 10.1