Name _____ Date _____

7.1 Puzzle Time

How Did The Man At The Seafood Restaurant Cut His Mouth?

Circle the letter of each correct answer in the boxes below. The circled letters will spell out the answer to the riddle.

Find the two square roots of the number.

1. 169

2. 576

3. $\dfrac{49}{64}$

4. 2.56

Find the square root(s).

5. $\sqrt{400}$

6. $-\sqrt{225}$

7. $\pm\sqrt{\dfrac{9}{16}}$

8. $\sqrt{\dfrac{36}{25}}$

9. $\pm\sqrt{7.84}$

10. $-\sqrt{56.25}$

Evaluate the expression.

11. $6 - 2\sqrt{81}$

12. $\sqrt{53.29} + \sqrt{2.89}$

13. $\sqrt{21.16} - \sqrt{1.69}$

14. $7\sqrt{\dfrac{25}{49}} + \sqrt{\dfrac{36}{64}}$

15. The bottom of a circular swimming pool has an area of 200.96 square feet. What is the radius (in feet) of the swimming pool? Use 3.14 for π.

R	E	L	C	A	F	T	M	I	H	N	U	S	B	G	R	D
25	± 2.8	-10	7.5	± 1.6	2.3	$\pm\dfrac{3}{4}$	$4\dfrac{3}{4}$	± 13	28	$\pm\dfrac{7}{8}$	± 3.4	$4\dfrac{1}{3}$	-5.5	-12	30	± 5.2

S	I	T	W	N	O	P	R	G	D	V	F	I	Y	S	L	H
-15	$3\dfrac{1}{4}$	-6.5	$5\dfrac{3}{4}$	3.4	20	± 1.8	$\dfrac{6}{5}$	12	8	-1.6	3.3	± 24	-6.1	-7.5	14	9

7.2 Puzzle Time

What Kind of Coat Is Made Without Buttons?

Write the letter of each answer in the box containing the exercise number.

Find the cube root.

1. $\sqrt[3]{216}$

2. $\sqrt[3]{-343}$

3. $\sqrt[3]{\dfrac{27}{64}}$

4. $\sqrt[3]{-\dfrac{1000}{1331}}$

Evaluate the expression.

5. $21 - \sqrt[3]{729}$

6. $\sqrt[3]{-\dfrac{1}{125}} + 6\dfrac{1}{2}$

7. $6\sqrt[3]{-512} + 13$

8. $\left(\sqrt[3]{-2744}\right)^3 + 2800$

Evaluate the expression for the given value of the variable.

9. $3a - \sqrt[3]{5a},\, a = 25$

10. $\sqrt[3]{-\dfrac{x}{5}} + \dfrac{x}{10},\, x = 320$

11. The volume of a box is 8000 cubic millimeters. What is the edge length of the box?

Answers
A. $-\dfrac{10}{11}$
I. 6
T. 56
A. $\dfrac{3}{4}$
T. -35
C. 20
F. 12
N. 70
O. -7
P. 28
O. $6\dfrac{3}{10}$

11	6	3	8		2	5		10	4	1	9	7