

7.NS.3 — Rational Numbers in the Real World

Integers • Grade 7 • Word Problems • Set C • CCSS 7.NS.3

Name: _____

Date: _____

Read each problem carefully, show your work, and write your answer with its unit.

1. A submarine was at -200 feet. It rose $\frac{1}{4}$ of that distance toward the surface. What is the submarine's new depth?

2. Diego owes a friend \$54.75. Diego earns \$31.00 babysitting and uses all of it to pay back part of the debt. How much does Diego still owe?

3. Yara lost $3\frac{1}{2}$ points on a penalty in a trivia game, then earned $3\frac{1}{4}$ points on the next question, and lost $1\frac{1}{4}$ points on another penalty. What is Yara's total score for those three rounds?

4. A scuba diver descended at a rate of -4.7 meters per minute. After 6.2 minutes, how deep is the diver?

5. The temperature changed by -2.8°F each hour for 3.6 hours. What was the total change in temperature?

6. On a winter night, the temperature was -3.6°F . The next morning it was -14.6°F . How many degrees did the temperature drop overnight?

7. A deep-sea fish swam from -166 feet to -126 feet. How many feet did the fish rise?

8. Ivan's bank account balance was -\$71.25. Ivan deposited \$176.00 and then spent \$73.19 on groceries. What is the new balance?

9. The temperature in Anchorage was -14.75°F in the morning. By noon it had risen 7°F , and by evening it dropped 8°F . What was the temperature in the evening?

10. A football team gained $8\frac{1}{2}$ yards on the first play, lost $1\frac{1}{2}$ yards on the second play, and gained $4\frac{3}{4}$ yards on the third play. What was the total yardage change after three plays?

11. Uma had \$20.50 in an account, then made 2 equal withdrawals of \$30.00 each. What is the account balance after the withdrawals?

12. The water level in a reservoir dropped 1.5 feet per day for 4 days and then rose 1 feet per day for 4 days. What was the total change in water level?

13. Carla lost $3\frac{1}{4}$ points on a penalty in a trivia game, then earned $1\frac{1}{2}$ points on the next question, and lost $1\frac{1}{2}$ points on another penalty. What is Carla's total score for those three rounds?

14. A store marked down all prices by $\frac{1}{5}$. If a jacket originally cost \$65.85, how much does the jacket cost after the markdown?

15. A submarine was at -60 feet. It rose $\frac{2}{3}$ of that distance toward the surface. What is the submarine's new depth?

16. Noah owes a friend \$37.25. Noah earns \$8.00 babysitting and uses all of it to pay back part of the debt. How much does Noah still owe?

17. Felix lost $1\frac{1}{2}$ points on a penalty in a trivia game, then earned $5\frac{3}{4}$ points on the next question, and lost $3\frac{3}{4}$ points on another penalty. What is Felix's total score for those three rounds?

18. A scuba diver descended at a rate of -4.4 meters per minute. After 7.7 minutes, how deep is the diver?

19. The temperature changed by -3.9°F each hour for 7.5 hours. What was the total change in temperature?

20. On a winter night, the temperature was -8.4°F . The next morning it was -22.5°F . How many degrees did the temperature drop overnight?

21. A deep-sea fish swam from -309 feet to -257 feet. How many feet did the fish rise?

22. Tessa's bank account balance was -\$88.00. Tessa deposited \$71.00 and then spent \$89.57 on groceries. What is the new balance?

Answer Key

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|-----------------------------|-----------------------------|------------------------------|
| 1. -150 feet | 9. -15.75°F | 17. $1\frac{1}{2}$ points |
| 2. $-\$23.75$ | 10. $11\frac{3}{4}$ yards | 18. -33.88 meters |
| 3. $-1\frac{1}{2}$ points | 11. $-\$39.50$ | 19. -29.25°F |
| 4. -29.14 meters | 12. -2 feet | 20. 14.1°F |
| 5. -10.08°F | 13. $-3\frac{1}{4}$ points | 21. 52 feet |
| 6. 11°F | 14. $\$52.68$ | 22. $-\$106.57$ |
| 7. 40 feet | 15. -20 feet | |
| 8. $\$31.56$ | 16. $-\$29.25$ | |