

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

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

Name: _____

Date: _____

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

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

2. Felix borrowed \$230 from a relative, paid back $\frac{1}{4}$ of the debt in the first month and $\frac{1}{4}$ of the debt in the second month. How much does Felix still owe?

3. A submarine was at -480 feet. It rose $\frac{5}{8}$ of that distance toward the surface. What is the submarine's new depth?

4. Grace's bank account balance was -\$88.25. Grace deposited \$97.00 and then spent \$29.61 on groceries. What is the new balance?

5. A deep-sea fish swam from -246 feet to -131 feet. How many feet did the fish rise?

6. A scuba diver descended at a rate of -3.9 meters per minute. After 3.6 minutes, how deep is the diver?

7. The water level in a reservoir dropped 1 foot per day for 8 days and then rose 1.5 feet per day for 3 days. What was the total change in water level?

8. Ivan owes a friend \$41.00. Ivan earns \$23.75 babysitting and uses all of it to pay back part of the debt. How much does Ivan still owe?

9. Victor had \$65.25 in an account, then made 2 equal withdrawals of \$15.75 each. What is the account balance after the withdrawals?

10. A store marked down all prices by $\frac{4}{5}$. If a jacket originally cost \$117.15, how much does the jacket cost after the markdown?

11. The temperature in Helena was -10.25°F in the morning. By noon it had risen 14.5°F , and by evening it dropped 10.25°F . What was the temperature in the evening?

12. On a winter night, the temperature was -4.1°F . The next morning it was -13.6°F . How many degrees did the temperature drop overnight?

13. A football team gained $7\frac{1}{2}$ yards on the first play, lost $2\frac{1}{4}$ yards on the second play, and gained $6\frac{3}{4}$ yards on the third play. What was the total yardage change after three plays?

14. The temperature changed by -2.5°F each hour for 6 hours. What was the total change in temperature?

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

16. Victor borrowed \$100 from a relative, paid back $\frac{1}{4}$ of the debt in the first month and $\frac{2}{5}$ of the debt in the second month. How much does Victor still owe?

17. A submarine was at -450 feet. It rose $\frac{1}{5}$ of that distance toward the surface. What is the submarine's new depth?

18. Omar's bank account balance was $-\$50.50$. Omar deposited \$138.00 and then spent \$89.04 on groceries. What is the new balance?

19. A deep-sea fish swam from -235 feet to -73 feet. How many feet did the fish rise?

20. A scuba diver descended at a rate of -2.4 meters per minute. After 3.4 minutes, how deep is the diver?

21. The water level in a reservoir dropped 1.25 feet per day for 5 days and then rose 0.75 feet per day for 3 days. What was the total change in water level?

22. Hana owes a friend \$24.75. Hana earns \$13.00 babysitting and uses all of it to pay back part of the debt. How much does Hana still owe?

Answer Key

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| 1. $-1/2$ points | 9. \$33.75 | 17. -360 feet |
| 2. \$115 | 10. \$23.43 | 18. -\$1.54 |
| 3. -180 feet | 11. -6°F | 19. 162 feet |
| 4. -\$20.86 | 12. 9.5°F | 20. -8.16 meters |
| 5. 115 feet | 13. 12 yards | 21. -4 feet |
| 6. -14.04 meters | 14. -15°F | 22. -\$11.75 |
| 7. -3.5 feet | 15. -1 points | |
| 8. -\$17.25 | 16. \$35 | |