

Pioneer Press Newspapers In Education 2015  
**SIXTH GRADE MATHEMATICS**

**ANSWERS**

1. **B 6.3.1.3** Geometry & Measurement (estimate area of irregular figures on a grid)
2. **A 6.2.1.1** Algebra (represent a quantity that can change)
3. **D 6.1.3.3** Number & Operation (calculate the percent of a number)
4. **D 6.1.1.4** Number & Operation (determine equivalencies among percent and fractions)
5. **C 6.3.2.3** Geometry & Measurement (use formulas for the sums of the interior angles of polygons by decomposing them into triangles)
6. **B 6.1.1.2** Number & Operation (compare rational numbers)
7. **C 6.1.1.7** Number & Operation (convert between equivalent representations of positive rational numbers)
8. **Gridded response 6.1.2.4** Number & Operation (use multiplication to solve ratio problems)  
*Note: On the gridded response, it is necessary to change a mixed number into an improper fraction to record the answer  $3\frac{1}{2}$  needs to be changed to  $\frac{7}{2}$ . Also, in the past there have been no reminders to students to make this change before recording their answer on the test.*
9. **C 6.4.1.3** Data Analysis & Probability (find the relative frequencies of the performed experiment)
10. **D 6.1.1.5** Number & Operation (determine prime factorization of positive integers)
11. **B 6.4.1.1** Data Analysis & Probability (determine sample space and relate to certain events) Total of 24 rolls and the frequency of the number 2 is 7.
12. **A 6.3.1.2** Geometry & Measurement (calculate the area of the parallelogram)
13. **A 6.1.2.1** Number & Operation (identify and use ratios to compare quantities)
14. **C 6.1.1.6** Number & Operation (determine the least common multiple) *Least* common multiple (not just a common multiple)
15. **C 6.4.1.4** Data Analysis & Probability (calculate experimental probabilities)
16. **D 6.3.2.1** Geometry & Measurement (solve problems using relationships between angles)
17. **B 6.2.3.2** Algebra (solve equations)

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18. **A 6.1.1.1** Number & Operation (plotting ordered pairs) Reading ordered pairs on a coordinate grid: K (-3, 0); P (0, -3); B (3, 0); T (0, 3)
19. **B 6.3.2.2** Geometry & Measurement (determine the missing angle measure in a triangle) The sum of the interior angles of a triangle is  $180^\circ$ .
20. **D 6.2.3.1** Algebra (represent real-world situations with equations)
21. **A 6.3.1.1** Geometry & Measurement (calculate the surface area)
22. **C 6.2.2.1** Algebra (apply the correct order of operations)
23. **C 6.2.1.2** Algebra (represent relationships between two varying quantities translating between representations)
24. **A 6.1.2.3** Number & Operation (determine ratios for quantities with different units)
25. **B 6.1.2.2** Number & Operation (relationship between ratios, equivalent fractions, and percent)
26. **D 6.4.1.2** Data Analysis & Probability (determine the probability of an event using ratios) Total number of rented movies is 42 and ratios were simplified
27. **D 6.3.3.1** Geometry & Measurement (conversions using ratios) 3.8 liters is equivalent to 3800 milliliters
28. **C 6.3.3.1** Geometry & Measurement (conversion using ratios) 15 jump ropes times 6 feet is 90 feet; convert feet to yards
29. **B 6.1.3.4** Number & Operation (solve real-world problems involving fractions and mixed numbers)
30. **C 6.1.1.3** Number & Operation (percents represents parts out of 100)
31. **A 6.1.3.1** Number & Operation (multiply decimals)
32. **D 6.1.3.1** Number & Operation (divide decimals)