

Pre–Algebra

**Workbook with Keys**

**S***implified*  
*olutions*  
**For Math**

## Pre-Algebra Bench Mark 6 Practice

Classify as rational or irrational.

1. 0.33

11. 1

2.  $\sqrt{16}$

12.  $\phi$

3. 7.125

13.  $\sqrt[3]{8}$

4.  $\sqrt{23}$

14.  $\sqrt{6}$

5.  $\pi$

15.  $\sqrt{31}$

6. 4.05

16.  $\sqrt[3]{84}$

7. 0.01

17.  $2\frac{1}{2}$

8.  $\frac{2}{3}$

18.  $\sqrt[3]{65}$

9.  $\sqrt[3]{45}$

19.  $e$

10.  $\sqrt[4]{14}$

20. 3.012

## Pre-Algebra Bench Mark 7 Practice

1. Find the period of the repeating part of  $\frac{1}{11}$ .

2. Convert  $0.\overline{27}$  to a fraction in simplest form.

3. Write  $\frac{21}{22}$  as a decimal.

Classify the decimal as repeating or terminating.

4. Find the period of the repeating part of  $\frac{1}{3}$ .

5. Convert  $0.5\overline{83}$  to a fraction in simplest form.

6. Write  $\frac{6}{5}$  as a decimal.

Classify the decimal as repeating or terminating.

7. Find the period of the repeating part of  $\frac{47}{33}$ .

8. Convert  $0.69\overline{69}$  to a fraction in simplest form.

9. Write  $\frac{11}{12}$  as a decimal.

Classify the decimal as repeating or terminating.

10. Find the period of the repeating part of  $\frac{8}{11}$ .

11. Convert  $0.54\overline{54}$  to a fraction in simplest form.

12. Write  $\frac{3}{11}$  as a decimal.

Classify the decimal as repeating or terminating.

13. Find the period of the repeating part of  $\frac{53}{66}$ .

14. Convert 0.235 to a fraction in simplest form.

15. Write  $\frac{8}{7}$  as a decimal.

Classify the decimal as repeating or terminating.

## Pre-Algebra Bench Mark 8 Practice

1. The price of a bus ticket has increased from \$4.00 to \$5.00. What is the percent of increase?
2. The price of a computer has decreased from \$800.00 to \$600.00. What is the percent of decrease?
3. The price of a toy train has increased from \$10.00 to \$12.00. What is the percent of increase?
4. The price of a pair of shoes has decreased from \$100.00 to \$80.00. What is the percent of decrease?
5. The price of daycare has decreased from \$20.00 a day to \$18.00 a day. What is the percent of decrease?
6. The price of blocks has decreased from \$4.00 to \$2.00. What is the percent of decrease?
7. The price of a plane ticket has increased from \$50.00 to \$57.50. What is the percent of increase?
8. The price of a pair of pants has decreased from \$80.00 to \$56.00. What is the percent of decrease?
9. The price of a toy truck has increased from \$12.00 to \$16.20. What is the percent of increase?
10. The price of a toy train has increased from \$10.00 to \$14.00. What is the percent of increase?
11. The price of a bottle of water has increased from \$3.00 to \$4.50. What is the percent of increase?
12. The price of a cup of coffee has decreased from \$4.00 to \$2.20. What is the percent of decrease?
13. The price of a book has increased from \$10.00 to \$12.50. What is the percent of increase?
14. The price of a box of pencils has decreased from \$2.00 to \$1.50. What is the percent of decrease?
15. The price of a hamburger has decreased from \$1.00 to \$0.50. What is the percent of decrease?

## Pre-Algebra Bench Mark 6 Practice Answer Key

1. rational

11. rational

2. rational

12. irrational

3. rational

13. rational

4. irrational

14. irrational

5. irrational

15. irrational

6. rational

16. irrational

7. rational

17. rational

8. rational

18. irrational

9. irrational

19. irrational

10. irrational

20. rational

## Pre-Algebra Bench Mark 7 Practice Answer Key

1. 2

9.  $0.91\overline{66}$ ; repeating

2.  $\frac{3}{11}$

10. 2

3.  $0.954\overline{54}$ ; repeating

11.  $\frac{6}{11}$

4. 1

12.  $0.27\overline{27}$ ; repeating

5.  $\frac{7}{12}$

13. 2

6. 1.2; terminating

14.  $\frac{47}{200}$

7. 2

15.  $1.\overline{142857}$ ; repeating

8.  $\frac{23}{33}$

## Pre-Algebra Bench Mark 8 Practice Answer Key

1. 25%

9. 35%

2. 25%

10. 40%

3. 20%

11. 50%

4. 20%

12. 45%

5. 10%

13. 25%

6. 50%

14. 25%

7. 15%

15. 50%

8. 30%