EXTRA PRACTICE - Exercises

Unit I – The Structure of Mathematics
Part B – Further Investigation of Number Symbols
Lesson 4 – Changing Decimal Forms to Fraction Forms

Find a fraction equivalent to each of the following terminating decimal numbers.

1. .05
2. 8.026
3. 1.040
4. .120462
5. 6.09
6. .49
7. 20.642
8. .421
9. .0045
10. .0028

Find a fraction equivalent to each of the following repeating decimal numbers.

11. $.541\overline{6}$
12. $.3\overline{8}$
13. $.\overline{571428}$
14. $.\ \overline{36}$
15. $.\ \overline{52}$
16. $.\overline{39}$
17. $.91\overline{6}$
18. $.3\overline{6}$
19. $.\ \overline{241}$
20. $11.1\overline{234}$

EXTRA PRACTICE — Answer Key

Unit I – The Structure of Mathematics
Part B – Further Investigation of Number Symbols
Lesson 4 – Changing Decimal Forms to Fraction Forms

Find a fraction equivalent to each of the following terminating decimal numbers.

1. .05 is read “five hundredths”, which can be written $\frac{5}{100}$: $\frac{5}{100}=\frac{5\cdot 1}{5\cdot 20}=\frac{1}{20}$

2. 8.026 is read “eight and twenty-six thousandths,” which can be written $8\frac{26}{1000}$: $8\frac{26}{1000}=8\frac{2\cdot 13}{2\cdot 500}=8\frac{13}{500}$

3. 1.040 is read “one and forty thousandths,” which can be written $1\frac{40}{1000}$: $1\frac{40}{1000}=1\frac{1\cdot 40}{25\cdot 40}=1\frac{1}{25}$

4. .120462 is read “one hundred twenty thousand four hundred sixty-two millionths,” which can be written

$\frac{120462}{1,000,000}$: $\frac{120462}{1,000,000}=\frac{60231\cdot 2}{500,000\cdot 2}=\frac{60231}{500,000}$

5. 6.09 is read “six and nine hundredths,” which can be written $6\frac{9}{100}$

6. .49 is read “forty-nine hundredths,” which can be written $\frac{49}{100}$

7. 20.642 is read “twenty and six hundred forty-two thousandths,” which can be written

$20\frac{642}{1000}$: $20\frac{642}{1000}=20\frac{2\cdot 321}{2\cdot 500}=20\frac{321}{500}$

8. .421 is read “four hundred twenty-one thousandths,” which can be written $\frac{421}{1000}$

9. .0045 is read “forty-five ten-thousandths,” which can be written $\frac{45}{10,000}$: $\frac{45}{10,000}=\frac{5\cdot 9}{5\cdot 2000}=\frac{9}{2000}$

10. .0028 is read “twenty-eight ten-thousandths,” which can be written $\frac{28}{10,000}$: $\frac{28}{10,000}=\frac{2\cdot 2\cdot 7}{2\cdot 2\cdot 2500}=\frac{7}{2500}$

Find a fraction equivalent to each of the following repeating decimal numbers.

11. $\frac{39}{72}$

12. $\frac{7}{18}$

13. $\frac{4}{7}$

14. $\frac{4}{11}$

15. $\frac{52}{99}$

16. $\frac{13}{33}$

17. $\frac{11}{12}$

18. $\frac{11}{30}$

19. $\frac{3238}{999}$

20. $\frac{12347}{1110}$