

Unit 5: Place Value Patterns and Decimal Operations

ADVANCED • SET 3

Name: _____ Date: _____

Work each problem carefully on scrap paper, then write only the final answer as a decimal or whole number.

1. Start with 0.0043. Multiply it by 10^4 , then divide that result by 10^2 . What number do you end with?

Answer: _____

3. A spool of 3D printer filament holds 1.75 kg. Each small model Mia prints uses 0.045 kg. She prints 26 models. How many kg of filament are left on the spool?

Answer: _____

5. A swim relay team of 4 finished in 4.06 minutes in total. The first three swimmers took 1.05 minutes, 0.98 minutes, and 1.12 minutes. How many minutes did the fourth swimmer take?

Answer: _____

7. A honeybee flies 0.65 km on each trip to a flower field. It makes 24 trips each day. How many km does it fly in 3 days?

Answer: _____

9. Find the value of $(4.8 \times 0.25) + (6.3 \div 0.7)$.

Answer: _____

2. Rosa divides 6.2 by a power of 10 and gets 0.00062. She used 10^n . What is the value of n ?

Answer: _____

4. A pottery kiln is loaded with 8.4 kg of clay tiles. Every tile weighs 0.24 kg. How many tiles are in the load?

Answer: _____

6. The value of the digit 7 in 7,200 is how many times the value of the digit 7 in 0.07?

Answer: _____

8. A go-kart travels 12.075 km on 3.5 liters of fuel. How many km does it travel on 1 liter?

Answer: _____

10. One grain of a fine sand weighs 0.0062 grams. How many grains are needed to weigh exactly 62 grams?

Answer: _____

11. A science club buys 18 test tubes at \$2.45 each and 5 rubber corks at \$0.60 each. They pay with \$50. How many dollars of change do they get back?

Answer: _____

12. Find the value of $(0.0009 \times 10^5) - (4.5 \times 10^1)$.

Answer: _____