

2022

Summer Math Packet



This packet is for students entering 6th grade in the fall.

This packet will be collected during the first week of school next year.

Please write answers on packet and attach all math work.

Name: _____

Section 1: Decimal Operations:

Directions: Evaluate the expressions. ***For expressions with division: Round to nearest hundredth if needed.

1). $23.8 + 5.29 + 125.14$	2). $3141.57 - 242.9$	3). 35.8×4	4). $0.68 \div 2$
5). $57.8 + 4.22$	6). $236.83 - 86.712$	7). 0.05×14.3	8). $45.45 \div 9$

Section 2: Order of Operations:

Directions: Evaluate the expression.

1). 13^2	2). $12 \div 4 + 5$	3). $(1 + 11)^2 \div 3$
4). $24 \div 6 + 4^2$	5). $8 - 3 + 4$	6). 5^3
7). $26 \cdot 10^3$	8). $\frac{(3 \cdot 18)}{(2 \cdot 9)}$	9). $6 + 3(7 - 2)$
10). $(11 \cdot 4 - 10) \div 2$	11). $10 \div 2 \times (4 - 3)$	12). $[2 \cdot (23 - 6) + 14] \div 6$

Section 3: Algebraic Expressions:

Directions: Evaluate each expression if $a = 3$, $b = 4$, $c = 12$, and $d = 1$.

1). $\frac{(2c + ab)}{c}$	2). $144 - abc$	3). $5a^2 + 2d^2$
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Section 4: Scientific Notation: Part 1:

Directions: Write the following expression in scientific notation.

1). $37,000$	2). $5,976,000$	3). $8,608,000,000$
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Section 5: Scientific Notation: Part 2:

Directions: Write the following expression in standard form.

1). 2.5×10^4	2). 3.07×10^7	3). 7.283×10^5
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Section 6: Equations:

Directions: Solve the following equations.

1). $y - 14 = 24$	2). $15 + a = 43$	3). $w \div 4 = 9$
4). $75 = w + 56$	5). $\frac{r}{9} = 5$	6). $69 = 3f$

Section 7: Fractions to Decimals:

Directions: Write each fraction or mixed number as a decimal.

1). $\frac{16}{20}$	2). $5 \frac{13}{50}$	3). $\frac{2}{9}$
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Section 8: Decimals to Fractions:

Directions: Write each decimal as a fraction in simplest form.

1). 0.6	2). 7.25	3). 0.144
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Section 9: Fractions and Percents:

Directions: Write each percent as a fraction in simplest form.

1) 70%	2) 19%	3) 24%
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Section 10: Percents and Decimals: Part 1:

Directions: Write each percent as a decimal.

1) 16%	2) $83\frac{1}{2}\%$	3) 5.78%
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Section 11: Percents and Decimals: Part 2:

Directions: Write each decimal as a percent.

1) 0.9	2) 0.51	3) 0.038
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Section 12: Mixed Number and Improper Fraction Conversions:

Directions: Write the improper fraction as a mixed number.

1) $\frac{11}{4}$	2) $\frac{32}{12}$	3) $\frac{15}{2}$
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Directions: Write the mixed number as an improper fraction.

1) $3\frac{5}{8}$	2) $5\frac{5}{16}$	3) $2\frac{9}{11}$
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Section 13: Adding and Subtracting Fractions and Mixed Numbers:

Directions: Add the fractions or mixed numbers. Write answer in simplest form.

1) $\frac{7}{8} - \frac{2}{3}$	2) $\frac{4}{7} + \frac{1}{5}$
3) $\frac{4}{5} + \frac{1}{10}$	4) $4\frac{2}{3} + 6\frac{1}{2}$
5) $3\frac{11}{20} - 1\frac{7}{10}$	6) $\frac{4}{9} - \frac{1}{12}$
7) $8\frac{1}{3} + \frac{7}{9}$	8) $15\frac{2}{3} - 7\frac{1}{5}$
9) $8\frac{3}{4} + 5\frac{2}{5}$	10) $8 - 3\frac{2}{5}$

Section 14: Multiplying or Dividing Fractions and Mixed Numbers:

Directions: Add or subtract the fractions or mixed numbers. Write answers in simplest form.

1) $\frac{3}{5} \times \frac{2}{8}$	2) $\frac{1}{2} \div \frac{1}{3}$
3) $\frac{2}{7} \div \frac{8}{21}$	4) $\frac{3}{5} \times \frac{10}{21}$
5) $4 \div \frac{2}{3}$	6) $\frac{3}{5} \div \frac{6}{7}$
7) $6 \times \frac{13}{20}$	8) $2\frac{1}{3} \times \frac{3}{4}$
9) $4\frac{1}{2} \times 2\frac{1}{12}$	10) $4\frac{3}{10} \div 2\frac{1}{5}$

Section 15: Perimeter and Area of a Rectangle:

Directions: Find the Perimeter and Area of each Rectangle.

4 ft.



6.5 ft.

12 in.



18 in.

Section 16: Rates:

Directions: Express each rate as a unit rate.

1). 150 people for 5 classes. _____

2). 810 Calories in 3 servings. _____

3). 1,500 words in 25 minutes. _____

Section 17: Proportions:

Directions: Solve each proportion.

1).

$$\frac{5}{9} = \frac{10}{x}$$

2).

$$\frac{16}{t} = \frac{2}{3}$$

3).

$$\frac{y}{12} = \frac{12}{4}$$

4).

$$\frac{30}{w} = \frac{8}{20}$$

5).

$$\frac{2}{12} = \frac{a}{36}$$

6).

$$\frac{z}{36} = \frac{15}{24}$$

Section 18: Percents Greater Than 100% and Percents Less Than 1%: Part 1:

Directions: Write each percent as a mixed number or fraction in simplest form.

1) 375%	2) 0.4%	3) 140%	4) 0.45%
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Section 18: Percents Greater Than 100% and Percents Less Than 1%: Part 2:

Directions: Write each decimal or mixed number as a percent.

1) 0.008	2) 6.51	3) 0.17	4) $2\frac{1}{2}$
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Section 19: Percent of a Number:

Directions: Find each number. Round to the nearest tenth if necessary.

1) Find 20% of \$120	2) Find 75% of 200
3) Find 10% of \$575	4) Find 40% of 60

Section 20: The Percent Proportion: Problems:

Directions: Find each number. Round to the nearest tenth if necessary.

1) What number is 25% of 280?	2) 38 is what percent of 50?
3) 12% of 120 is what number?	4) 9 is what percent of 30?