

Speed Work: Level Four

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Mastery Goals

| Topic | # Correct to Pass | Time to Pass (Minutes) |
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Multiplying Fractions:

Level Four: 20 problems

Multiply & Reduce.

| | | | |
|------------------------------------|-----------------------------------|------------------------------------|------------------------------------|
| $\frac{1}{4} \times \frac{2}{3}$ | $\frac{2}{5} \times \frac{2}{7}$ | $\frac{3}{8} \times \frac{3}{5}$ | $\frac{5}{12} \times \frac{3}{4}$ |
| $\frac{5}{9} \times \frac{2}{11}$ | $\frac{8}{9} \times \frac{3}{10}$ | $\frac{6}{7} \times \frac{7}{6}$ | $\frac{6}{5} \times \frac{3}{7}$ |
| $\frac{3}{7} \times \frac{9}{4}$ | $\frac{4}{7} \times \frac{6}{9}$ | $\frac{4}{5} \times \frac{8}{9}$ | $\frac{2}{5} \times \frac{7}{8}$ |
| $\frac{-3}{5} \times \frac{2}{5}$ | $\frac{4}{11} \times \frac{3}{7}$ | $\frac{5}{9} \times \frac{-7}{8}$ | $\frac{4}{11} \times \frac{3}{7}$ |
| $\frac{-2}{9} \times \frac{-7}{9}$ | $\frac{1}{8} \times \frac{-7}{3}$ | $\frac{-4}{7} \times \frac{-3}{8}$ | $\frac{1}{8} \times \frac{-11}{6}$ |

Negative Numbers:

Level Four: 16 problems

| | | | |
|-----------------|-----------------|------------------|------------------|
| $-4 \times 5 =$ | $-4 - 5 =$ | $10 \div -5 =$ | $-10 + -5 =$ |
| $2 + -5 =$ | $-15 \div -5 =$ | $-5 - -5 =$ | $-14 + 6 =$ |
| $-9 \times 6 =$ | $-9 - 6 =$ | $-2 \div 4 =$ | $-2 \times -4 =$ |
| $-16 + 6 =$ | $-12 + 8 =$ | $-2 \times -8 =$ | $5 \times -8 =$ |

Dividing Fractions:

Level Four: 12 problems

Divide & Reduce.

| | | | |
|---------------------------------|---------------------------------|--------------------------------|---------------------------------|
| $\frac{1}{4} \div \frac{2}{3}$ | $\frac{2}{5} \div \frac{2}{7}$ | $\frac{3}{8} \div \frac{4}{5}$ | $\frac{5}{12} \div \frac{3}{4}$ |
| $\frac{5}{9} \div \frac{2}{11}$ | $\frac{8}{9} \div \frac{3}{10}$ | $\frac{6}{7} \div \frac{7}{6}$ | $\frac{6}{5} \div \frac{3}{7}$ |
| $\frac{3}{7} \div \frac{9}{4}$ | $\frac{4}{7} \div \frac{6}{9}$ | $\frac{4}{5} \div \frac{8}{9}$ | $\frac{2}{5} \div \frac{7}{8}$ |

Translating Words:

Level Four: 12 problems

| | | | |
|--|--|--|---|
| <p>The product of x and two more than y .</p> | <p>The sum of twice x and 35.</p> | <p>The quotient of 5 less than x and 7.</p> | <p>Four times the difference between x and y</p> |
| <p>16 less twice the difference between x and y.</p> | <p>45 more than y squared.</p> | <p>The product of $\frac{1}{2}y$ and 12 less than x.</p> | <p>The quotient of one – fourth of x and y cubed.</p> |
| <p>Five times y increased by 19</p> | <p>The quotient of y and 25 decreased by 31</p> | <p>The square of y less six times y.</p> | <p>The sum of x squared and the product of x and 100.</p> |

Squares:

Level Four: 12 problems

| | | | |
|---------|----------|----------|----------|
| $1^2 =$ | $2^2 =$ | $3^2 =$ | $4^2 =$ |
| $5^2 =$ | $6^2 =$ | $7^2 =$ | $8^2 =$ |
| $9^2 =$ | $10^2 =$ | $11^2 =$ | $12^2 =$ |

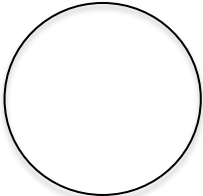


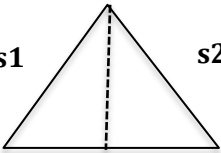
Squares Roots:

Level Four: 12 problems

| | | | |
|--------------|--------------|--------------|-------------|
| $\sqrt{36}$ | $\sqrt{25}$ | $\sqrt{81}$ | $\sqrt{9}$ |
| $\sqrt{16}$ | $\sqrt{121}$ | $\sqrt{100}$ | $\sqrt{64}$ |
| $\sqrt{144}$ | $\sqrt{49}$ | $\sqrt{1}$ | $\sqrt{4}$ |

Areas & Perimeters

Level 4: 8 Problems

| | | | |
|--|--|--|--|
|  <p>Circle radius $r = 3$</p> |  <p>Rectangle length = 4 width = 5</p> |  <p>Square side = 6</p> |  <p>Triangle s1 = 5 s2 = 5 base = 6 height = 4</p> |
| <p>Circle Area:</p> | <p>Rectangle Area:</p> | <p>Square Area:</p> | <p>Triangle Area:</p> |
| <p>Circle Circumference:</p> | <p>Rectangle Perimeter:</p> | <p>Square Perimeter:</p> | <p>Triangle Perimeter:</p> |

Answer Key

Level Four

| Multiply Fractions | | | | Negative Numbers | | | | Dividing Fractions | | | |
|--------------------|-----------------|------------------|------------------|------------------|-----|----------------|-----|--------------------|-----------------|-----------------|-----------------|
| $\frac{1}{6}$ | $\frac{4}{35}$ | $\frac{9}{40}$ | $\frac{5}{16}$ | -20 | -9 | -2 | -15 | $\frac{3}{8}$ | $\frac{7}{5}$ | $\frac{15}{32}$ | $\frac{5}{9}$ |
| $\frac{10}{99}$ | $\frac{4}{15}$ | 1 | $\frac{18}{35}$ | -3 | 3 | 0 | -8 | $\frac{55}{18}$ | $\frac{80}{27}$ | $\frac{36}{49}$ | $\frac{14}{5}$ |
| $\frac{27}{28}$ | $\frac{8}{21}$ | $\frac{32}{45}$ | $\frac{7}{20}$ | -54 | -15 | $-\frac{1}{2}$ | 8 | $\frac{4}{21}$ | $\frac{6}{7}$ | $\frac{9}{10}$ | $\frac{16}{35}$ |
| $\frac{-6}{25}$ | $\frac{12}{77}$ | $\frac{-35}{72}$ | $\frac{12}{77}$ | -10 | -4 | 16 | -40 | | | | |
| $\frac{14}{81}$ | $\frac{-7}{24}$ | $\frac{3}{14}$ | $\frac{-11}{48}$ | | | | | | | | |

Translating Word Problems

| | | | |
|-------------------|---------------------|------------------------|----------------------------|
| $x \cdot (2 + y)$ | $2x + 35$ | $\frac{x - 5}{7}$ | $4(x - y)$ |
| $2(x - y) - 16$ | $y^2 + 45$ | $\frac{1}{2}y(x - 12)$ | $\frac{1}{4}\frac{x}{y^3}$ |
| $5y + 19$ | $\frac{y}{25} - 31$ | $y^2 - 6y$ | $x^2 + 100x$ |

Squares

| Squares | | | | Square Roots | | | |
|---------|-----|-----|-----|--------------|----|----|---|
| 1 | 4 | 9 | 16 | 6 | 5 | 9 | 3 |
| 25 | 36 | 49 | 64 | 4 | 11 | 10 | 8 |
| 81 | 100 | 121 | 144 | 12 | 7 | 1 | 2 |

Areas & Perimeters

| | | | |
|--------|----|----|----|
| 9π | 20 | 36 | 12 |
| 6π | 18 | 24 | 16 |