

## Directions and/or Suggestions for Implementing Mixed Computation Activities

Pens or Pencils along with scratch paper organized with 4 regions on the front and 4 regions on the back. Scratch paper regions are labeled with name of number type and students can start with any number type. Students should be encouraged to use any or all of Times Table and/or Column Facts and/or Calculator. After completion of Mixed Computation Activities, students are responsible to grade their own papers. During the grading of Computation Activities, students need to identify with a mark any wrong answers. Students have a tendency to erase wrong answers and quickly replace with right answers. Do not allow! Replacing right answers with wrong answers does allow students a chance to determine why incorrect. After students have graded activities, they determine why they missed and correct, showing all work. Usually, stronger students finish activities first and they can correct wrong answers with little or no help. As challenged students finish grading, all students, strong and challenged, gather in collaborative teams. These Collaborative Teams should be carefully selected and grouped with a strong student as leader. There should not be more than 3 in a Collaborative Team with one strong leader helping challenged. Team Leaders assist challenged students to understand reasons why problems are wrong and to correct. If not enough students are strong to be Team Leaders then allow challenged to work with challenged. Teachers mingle throughout the classroom, when asked about a problem; suggest a leader to answer it. If a Team Leader has tried but has not helped others to understand then Teachers should intervene. First and foremost, students should always be helping students while Teachers facilitates teamwork. Completing, Grading, Correcting, and Collaborating (discussing solutions) should be a class period! All student activities with scratch paper are securely stored in an individual class folder for later use. If any students wants to take a Computation Activity home for practice or to show parents then allow! Many students, strong and challenged, will want another activity, if have completed with good scores! Computational Activities alternating with Conceptual provide a well balanced learning environment.

Since students are allowed to work at individual pace then organizing groups per level (1,2,3) is OK! Additional classroom or WWW activities are encouraged to provide practice with All Number Types!

Advanced Numbers \* Mixed Computations 3 E

Collaboration means to Describe, Reason, and Justify answers! Scratch Work on Back!  
Analyze steps in any doubtful solutions! Communicate with similar problems & solutions!

$3 : 9 = 7 : \underline{\quad}$

$175\% \text{ of } 36 \text{ is } \underline{\quad}$

$6^0 \times 8^2 = \underline{\quad}$

$\sqrt{36} \times \sqrt{9} = \underline{\quad}$

$2/3 \times 3/5 = \underline{\quad}$

$2 \frac{1}{3} \times 1 \frac{1}{5} = \underline{\quad}$

$313 \times 4 = \underline{\quad}$

$1.7 \times .004 = \underline{\quad}$

$3 : 5 = \underline{\quad} : 7$

$65\% \text{ of } 20 \text{ is } \underline{\quad}$

$7^0 + 2^3 = \underline{\quad}$

$\sqrt{169} + \sqrt{64} = \underline{\quad}$

$2/3 + 4/5 = \underline{\quad}$

$3 \frac{3}{4} + 2 \frac{1}{3} = \underline{\quad}$

$204 + 57 = \underline{\quad}$

$.76 + 4.5 = \underline{\quad}$

$5 : \underline{\quad} = 7 : 6$

$\underline{\quad}\% \text{ of } 60 \text{ is } 21$

$9^1 / 4^2 = \underline{\quad}$

$\sqrt{49} / \sqrt{81} = \underline{\quad}$

$2/5 / 1/3 = \underline{\quad}$

$1 \frac{1}{4} / 2 \frac{1}{3} = \underline{\quad}$

$528 / 19 = \underline{\quad}$

$.03 / 1.5 = \underline{\quad}$

$\underline{\quad} : 8 = 6 : 4$

$\underline{\quad}\% \text{ of } 18 \text{ is } 6$

$5^3 - 3^1 = \underline{\quad}$

$\sqrt{225} - \sqrt{4} = \underline{\quad}$

$6/7 - 2/3 = \underline{\quad}$

$6 \frac{4}{5} - 2 \frac{1}{2} = \underline{\quad}$

$603 - 79 = \underline{\quad}$

$2.6 - .08 = \underline{\quad}$

Advanced Numbers \* Mixed Computations 3 F

Collaboration means to Describe, Reason, and Justify answers! Scratch Work on Back!  
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$$\underline{\hspace{1cm}} : 6 = 2 : 7$$

$$\underline{\hspace{1cm}} \% \text{ of } 20 \text{ is } 3$$

$$6^2 - 5^0 = \underline{\hspace{1cm}}$$

$$\sqrt{361} - \sqrt{4} = \underline{\hspace{1cm}}$$

$$2/3 - 1/2 = \underline{\hspace{1cm}}$$

$$5 \frac{3}{4} - 3 \frac{1}{5} = \underline{\hspace{1cm}}$$

$$603 - 78 = \underline{\hspace{1cm}}$$

$$5.08 - .4 = \underline{\hspace{1cm}}$$

$$2 : \underline{\hspace{1cm}} = 5 : 7$$

$$\underline{\hspace{1cm}} \% \text{ of } 45 \text{ is } 30$$

$$7^2 / 2^3 = \underline{\hspace{1cm}}$$

$$\sqrt{64} / \sqrt{25} = \underline{\hspace{1cm}}$$

$$4/5 / 1/2 = \underline{\hspace{1cm}}$$

$$2 \frac{1}{4} / 1 \frac{2}{5} = \underline{\hspace{1cm}}$$

$$835 / 18 = \underline{\hspace{1cm}}$$

$$1.2 / .04 = \underline{\hspace{1cm}}$$

$$5 : 4 = \underline{\hspace{1cm}} : 8$$

$$45\% \text{ of } 60 \text{ is } \underline{\hspace{1cm}}$$

$$8^0 + 9^3 = \underline{\hspace{1cm}}$$

$$\sqrt{324} + \sqrt{36} = \underline{\hspace{1cm}}$$

$$2/3 + 5/8 = \underline{\hspace{1cm}}$$

$$4 \frac{1}{2} + 3 \frac{4}{7} = \underline{\hspace{1cm}}$$

$$75 + 306 = \underline{\hspace{1cm}}$$

$$4.06 + .2 = \underline{\hspace{1cm}}$$

$$4 : 5 = 3 : \underline{\hspace{1cm}}$$

$$250\% \text{ of } 24 \text{ is } \underline{\hspace{1cm}}$$

$$3^1 \times 4^3 = \underline{\hspace{1cm}}$$

$$\sqrt{9} \times \sqrt{16} = \underline{\hspace{1cm}}$$

$$3/7 \times 5/6 = \underline{\hspace{1cm}}$$

$$2 \frac{2}{3} \times 1 \frac{1}{7} = \underline{\hspace{1cm}}$$

$$5 \times 307 = \underline{\hspace{1cm}}$$

$$1.5 \times 1.3 = \underline{\hspace{1cm}}$$

Advanced Numbers \* Mixed Computations 3 G

Collaboration means to Describe, Reason, and Justify answers! Scratch Work on Back!  
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$7 : 8 = \underline{\quad} : 5$

$15\% \text{ of } 60 \text{ is } \underline{\quad}$

$7^0 + 6^3 = \underline{\quad}$

$\sqrt{144} + \sqrt{4} = \underline{\quad}$

$3/4 + 3/5 = \underline{\quad}$

$3 \frac{5}{9} + 5 \frac{1}{2} = \underline{\quad}$

$94 + 305 = \underline{\quad}$

$.03 + 3.8 = \underline{\quad}$

$6 : \underline{\quad} = 8 : 3$

$\underline{\quad}\% \text{ of } 24 \text{ is } 8$

$4^3 / 3^2 = \underline{\quad}$

$\sqrt{16} / \sqrt{49} = \underline{\quad}$

$4/5 / 3/4 = \underline{\quad}$

$2 \frac{1}{2} / 1 \frac{2}{7} = \underline{\quad}$

$345 / 14 = \underline{\quad}$

$.28 / 1.4 = \underline{\quad}$

$\underline{\quad} : 4 = 7 : 3$

$\underline{\quad}\% \text{ of } 35 \text{ is } 21$

$2^3 - 8^0 = \underline{\quad}$

$\sqrt{196} - \sqrt{9} = \underline{\quad}$

$5/4 - 2/3 = \underline{\quad}$

$7 \frac{5}{8} - 3 \frac{1}{3} = \underline{\quad}$

$302 - 87 = \underline{\quad}$

$6.4 - .07 = \underline{\quad}$

$6 : 7 = 3 : \underline{\quad}$

$125\% \text{ of } 12 \text{ is } \underline{\quad}$

$5^1 \times 9^2 = \underline{\quad}$

$\sqrt{64} \times \sqrt{25} = \underline{\quad}$

$3/4 \times 4/9 = \underline{\quad}$

$1 \frac{1}{3} \times 1 \frac{3}{5} = \underline{\quad}$

$312 \times 7 = \underline{\quad}$

$.004 \times 2.3 = \underline{\quad}$

Advanced Numbers \* Mixed Computations 3 H

Collaboration means to Describe, Reason, and Justify answers! Scratch Work on Back!  
Analyze steps in any doubtful solutions! Communicate with similar problems & solutions!

$2 : 4 = \underline{\quad} : 5$

$45\% \text{ of } 20 \text{ is } \underline{\quad}$

$5^3 + 6^1 = \underline{\quad}$

$\sqrt{16} + \sqrt{144} = \underline{\quad}$

$3/5 + 1/2 = \underline{\quad}$

$3 \frac{2}{7} + 2 \frac{3}{4} = \underline{\quad}$

$709 + 85 = \underline{\quad}$

$2.05 + .4 = \underline{\quad}$

$2 : \underline{\quad} = 4 : 7$

$\underline{\quad}\% \text{ of } 24 \text{ is } 8$

$5^2 / 3^1 = \underline{\quad}$

$\sqrt{25} / \sqrt{9} = \underline{\quad}$

$3/4 / 2/7 = \underline{\quad}$

$1 \frac{3}{4} / 1 \frac{2}{7} = \underline{\quad}$

$537 / 16 = \underline{\quad}$

$1.5 / .03 = \underline{\quad}$

$4 : 8 = 7 : \underline{\quad}$

$225\% \text{ of } 40 \text{ is } \underline{\quad}$

$5^1 \times 4^3 = \underline{\quad}$

$\sqrt{81} \times \sqrt{64} = \underline{\quad}$

$5/4 \times 3/9 = \underline{\quad}$

$2 \frac{1}{3} \times 1 \frac{2}{5} = \underline{\quad}$

$6 \times 374 = \underline{\quad}$

$.07 \times 1.4 = \underline{\quad}$

$\underline{\quad} : 2 = 4 : 3$

$\underline{\quad}\% \text{ of } 24 \text{ is } 16$

$9^2 - 7^0 = \underline{\quad}$

$\sqrt{289} - \sqrt{36} = \underline{\quad}$

$3/4 - 5/9 = \underline{\quad}$

$4 \frac{4}{5} - 2 \frac{1}{3} = \underline{\quad}$

$403 - 69 = \underline{\quad}$

$5.06 - .3 = \underline{\quad}$