

MathLinks

BIG SQUARE PUZZLES

Big Square Puzzles are a great way to practice arithmetic and algebra ideas. To get started, pick and print a puzzle, cut up the pieces, and mix them up. To solve the puzzle, arrange the square pieces so that the expressions or equations on the pieces' edge are equal to each other. For extra fun, print the puzzle template at the end of this file and make your own puzzle for your parents to try!

BIG SQUARE PUZZLE

TERMINATING DECIMALS 1

0.7	0.6	0.9	0.5
$\frac{7}{10}$	$\frac{6}{10}$	$\frac{9}{10}$	$\frac{1}{2}$
0.3	0.9	0.8	0.5
$\frac{3}{10}$	$\frac{9}{10}$	$\frac{8}{10}$	$\frac{7}{100}$
$\frac{1}{2}$ of an hour	$\frac{1}{10}$ of an hour	$\frac{1}{4}$ of an hour	30 minutes
0.4	0.9	0.8	0.5
$\frac{4}{10}$	$\frac{9}{10}$	$\frac{8}{10}$	$\frac{5}{100}$
half a dollar	6 minutes	15 minutes	half a dollar
$\frac{40}{100}$	9 minutes	9 minutes	$\frac{50}{100}$
$\frac{700}{100}$	9 minutes	9 minutes	$\frac{50}{100}$
0.7	0.2	0.75	0.1
$\frac{7}{10}$	$\frac{2}{10}$	$\frac{75}{100}$	$\frac{10}{100}$
$\frac{3}{4}$ of an hour	$\frac{1}{10}$ of an hour	$\frac{3}{4}$	$\frac{1}{4}$
45 minutes	6 minutes	15 minutes	$\frac{1}{4}$ of an hour
0.9	0.6	0.8	0.5
$\frac{9}{10}$	$\frac{6}{10}$	$\frac{8}{10}$	$\frac{5}{10}$
$\frac{3}{10}$ of a dollar	$\frac{2}{10}$ of a dollar	$\frac{4}{10}$ of a dollar	$\frac{1}{2}$ of a dollar
$\frac{90}{100}$	$\frac{20}{100}$	$\frac{80}{100}$	$\frac{50}{100}$
0.30	0.20	0.80	0.50
$\frac{30}{100}$	$\frac{20}{100}$	$\frac{80}{100}$	$\frac{50}{100}$
$\frac{3}{10}$ of a dollar	$\frac{2}{10}$ of a dollar	$\frac{4}{10}$ of a dollar	$\frac{1}{2}$ of a dollar
$\frac{30}{100}$	$\frac{20}{100}$	$\frac{80}{100}$	$\frac{50}{100}$

BIG SQUARE PUZZLE TERMINATING DECIMALS 2

82.0 $\frac{10}{3}$ 0.4 $\frac{10}{4}$ 0.14 0.375 $\frac{8}{3}$ 0.04 0.10 $\frac{10}{1}$ $\frac{3}{2}$ $\frac{5}{5}$	$50.$ 0.25 0.20 2.0 0.8 $\frac{10}{8}$ 0.14 0.5 $\frac{5}{3}$ 0.14 $\frac{5}{2}$ 1.0 $\frac{2}{8}$	2.0 0.2 0.75 0.60 0.2 $\frac{4}{3}$ 0.12 $\frac{10}{9}$ 0.12 $\frac{2}{1}$ 0.06 1	9 0.9 0.125 57.0 0.5 0.5 $\frac{6}{10}$ 0.5 $\frac{25}{3}$ 0.5 $\frac{4}{2}$ 0.875 $\frac{2}{50}$
0.15 0.20 0.2 0.60 0.2 $\frac{4}{8}$ 0.12 $\frac{10}{9}$ 0.12 $\frac{2}{1}$ 0.06 1	0.25 0.20 2.0 0.8 $\frac{10}{8}$ 0.14 0.5 $\frac{5}{3}$ 0.14 $\frac{5}{2}$ 1.0 $\frac{2}{8}$	2.0 0.2 0.75 0.60 0.2 $\frac{4}{3}$ 0.12 $\frac{10}{9}$ 0.12 $\frac{2}{1}$ 0.06 1	9 0.9 0.125 57.0 0.5 0.5 $\frac{6}{10}$ 0.5 $\frac{25}{3}$ 0.5 $\frac{4}{2}$ 0.875 $\frac{2}{50}$

BIG SQUARE PUZZLE REPEATING DECIMALS

$0.83\overline{0}$ $0.222\overline{0}$ $0.83\overline{0}$	$0.222\overline{0}$ $0.222\overline{0}$ $0.222\overline{0}$	0.123 0.22 0.125	5.0 $0.66\overline{0}$ 0.75
$0.6\overline{0}$ 0.4 0.01	0.4 0.05 1	0.04 0.9 0.55	0.04 0.9 0.55
$0.83\overline{0}$ $0.222\overline{0}$ $0.83\overline{0}$	$0.222\overline{0}$ $0.222\overline{0}$ $0.222\overline{0}$	0.123 0.22 0.125	5.0 $0.66\overline{0}$ 0.75
$0.6\overline{0}$ 0.4 0.01	0.4 0.05 1	0.04 0.9 0.55	0.04 0.9 0.55

BIG SQUARE PUZZLE

INTEGER ADDITION AND SUBTRACTION

$5+5$	10	$4-7$	2
$12-(-6)$	$5+(-5)$	$6+1$	$-3+5$
8	0	7	$-3+0$
$7-(-4)$	11	$-6-(-1)$	$-5+3$
$8-$	$4-$	$5-$	$(9)-(-1)$
$-6-2$	$-6+2$	$-1-4$	5
2	$5-3$	$-5+5$	$-3-5$
3	$7-$	3	$0+3$
$-1+4$	$-6-1$	$-4-(-7)$	3
$-7+4$	$8-$	$-5-5$	-5
	-10	$1-6$	

BIG SQUARE PUZZLE

RATIONAL NUMBER ADDITION AND SUBTRACTION

0 $-3\frac{2}{3}$	$1\frac{1}{3}$ $4\frac{1}{4}$	$3\frac{1}{1}$ $2\frac{1}{2}$
$4\frac{1}{2} + \frac{3}{7} + 5\frac{1}{2}$ $-\frac{1}{4} - 2 + 2\frac{1}{4}$	$1\frac{1}{5}$ $3\frac{1}{2}$	$\frac{1}{4} + \frac{1}{2}$ $6\frac{1}{5} - \left(\frac{1}{4}\right)$
$10\frac{3}{7}$ $\frac{7}{12}$	$-\frac{2}{4} + \frac{1}{2}$ $3\frac{1}{2}$	$-\frac{11}{12}$ $-\frac{1}{7}$

BIG SQUARE PUZZLE

SOLVING EQUATIONS WITH RATIONAL COEFFICIENTS

$x = -2$ $1 = 7 + x$ $3x + 7 = 1$ $x = 2$	$x = -0.5$ $1 = x - 6$ $x = -8$	$13 = 9x$ $5.2 = x$ $-2(x-1) = -3$	$-5x - 4 = -3$ $x = -\frac{1}{5}$
$x = 2.5$ $5x - 3 = 6$ $9 = 3 + 6$ $x + 3 = -8$	$x = \frac{9}{5}$ $\frac{5}{8} = x$ $4 = \frac{5x}{2}$ $7 - x - 2 = 5$	$x = \frac{4}{5}$ $\frac{4}{5} = \frac{1}{5}x$ $x = -6$	$-6 = 2 + 4x$ $x = -\frac{1}{2}$
$x = -1$ $\frac{2}{3}x = -1$ $x = 25$ $2(x+9) = 2$	$x = -3$ $\frac{2}{5}x = 10$ $(\frac{2}{5})x = 10$ $x = -\frac{5}{8}$ $2 + (0.1 + x) \cdot 2 = 4.1$	$x = -4$ $4 = x$ $x = \frac{4}{5}$	$x = -2$ $x + 1 = -3$ $8x - 4 = -8$
$x = -8$ $9 - 3x = 0$	$x = 2$ $x = \frac{8}{6} = x$ $x = \frac{8}{10} = 0$	$5x + 9 = 5$ $3 = x$ $-8x + 4 = -5$	$x = \frac{1}{2}$ $9 = 3 - 2x$

BIG SQUARE PUZZLE PROPORTIONAL REASONING

$1 : 5$ $2.5 : 12.5$	$1 : 5$ $2.5 : 12.5$	$1 : \frac{5}{1}$ $36 : 45$	$1 : \frac{5}{1}$ $36 : 45$
$2.5 : 12.5$ $56 : 7$	$2.5 : 12.5$ $56 : 7$	$1 : \frac{5}{1}$ $36 : 45$	$1 : \frac{5}{1}$ $36 : 45$
$1 : 5$ $2.5 : 12.5$	$1 : 5$ $2.5 : 12.5$	$1 : \frac{5}{1}$ $36 : 45$	$1 : \frac{5}{1}$ $36 : 45$
$2.5 : 12.5$ $56 : 7$	$2.5 : 12.5$ $56 : 7$	$1 : \frac{5}{1}$ $36 : 45$	$1 : \frac{5}{1}$ $36 : 45$

BIG SQUARE PUZZLE TEMPLATE

