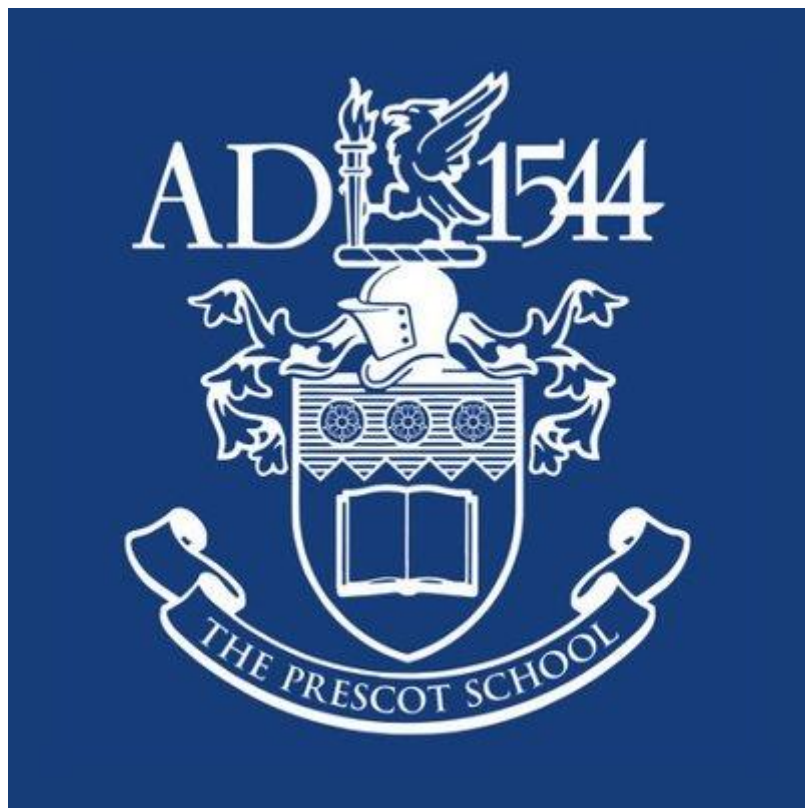


Mathematics Skill Booklet



KS3 (2)

Order the following fractions from the smallest to the biggest!

$$\frac{1}{8}, \frac{1}{2}, \frac{1}{4} \quad \underline{\hspace{2cm}}$$

$$\frac{5}{8}, \frac{5}{6}, \frac{5}{7} \quad \underline{\hspace{2cm}}$$

$$\frac{2}{4}, \frac{1}{4}, \frac{3}{4} \quad \underline{\hspace{2cm}}$$

$$\frac{5}{6}, \frac{1}{6}, \frac{3}{6} \quad \underline{\hspace{2cm}}$$

$$\frac{2}{3}, \frac{2}{2}, \frac{2}{4} \quad \underline{\hspace{2cm}}$$

$$\frac{1}{5}, \frac{2}{5}, \frac{0}{5} \quad \underline{\hspace{2cm}}$$



Order the following fractions from the biggest to the smallest!

$$\frac{1}{8}, \frac{5}{8}, \frac{2}{8} \quad \underline{\hspace{2cm}}$$

$$\frac{1}{2}, \frac{1}{3}, \frac{1}{1} \quad \underline{\hspace{2cm}}$$

$$\frac{5}{4}, \frac{3}{4}, \frac{2}{4} \quad \underline{\hspace{2cm}}$$

$$\frac{4}{6}, \frac{4}{7}, \frac{4}{5} \quad \underline{\hspace{2cm}}$$

$$\frac{2}{3}, \frac{5}{3}, \frac{1}{3} \quad \underline{\hspace{2cm}}$$

$$\frac{2}{4}, \frac{2}{5}, \frac{2}{3} \quad \underline{\hspace{2cm}}$$

$$\frac{5}{9}, \frac{5}{8}, \frac{5}{6} \quad \underline{\hspace{2cm}}$$

$$\frac{1}{3}, \frac{0}{2}, \frac{1}{4} \quad \underline{\hspace{2cm}}$$

Multiplication and Addition

Calculate

$3 \times 2 + 22 =$

$9 \times 3 + 47 =$

$4 \times 5 + 33 =$

$8 \times 1 + 31 =$

$6 \times 3 + 52 =$

$7 \times 5 + 20 =$

$4 \times 3 + 23 =$

$2 \times 6 + 45 =$

$4 \times 9 + 12 =$

$2 \times 6 + 24 =$

$7 \times 6 + 51 =$

$6 \times 7 + 17 =$

$3 \times 3 + 35 =$

$3 \times 9 + 50 =$

$4 \times 7 + 55 =$

$6 \times 7 + 33 =$

$2 \times 7 + 52 =$

$7 \times 2 + 33 =$

$5 \times 5 + 50 =$

$8 \times 3 + 47 =$

$9 \times 3 + 62 =$

$5 \times 4 + 34 =$

$3 \times 7 + 52 =$

$2 \times 8 + 58 =$

$3 \times 7 + 57 =$

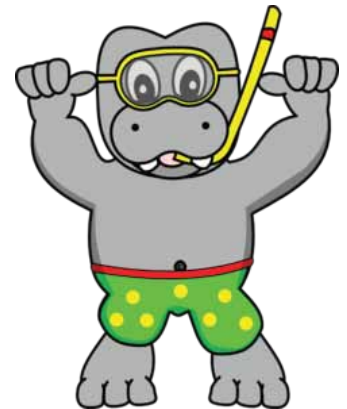
$8 \times 8 + 17 =$

$3 \times 7 + 27 =$

$6 \times 4 + 38 =$

$9 \times 9 + 18 =$

$6 \times 2 + 44 =$



Calculate

$56 \div 8 \times 2 =$

$24 \div 4 \times 9 =$

$32 \div 8 \times 3 =$

$45 \div 5 \times 2 =$

$40 \div 5 \times 4 =$

$28 \div 7 \times 6 =$

$45 \div 9 \times 3 =$

$16 \div 4 \times 3 =$

$27 \div 3 \times 4 =$

$32 \div 8 \times 8 =$

$21 \div 3 \times 5 =$

$14 \div 7 \times 3 =$

$30 \div 5 \times 3 =$

$18 \div 9 \times 7 =$

$15 \div 3 \times 7 =$

$28 \div 7 \times 8 =$

$56 \div 8 \times 4 =$

$32 \div 4 \times 6 =$

$48 \div 8 \times 3 =$

$42 \div 6 \times 5 =$

$40 \div 8 \times 3 =$

$63 \div 9 \times 2 =$

$49 \div 7 \times 7 =$

$45 \div 5 \times 7 =$

$12 \div 3 \times 7 =$

$48 \div 8 \times 5 =$

$56 \div 7 \times 2 =$

$35 \div 5 \times 3 =$

$36 \div 4 \times 2 =$

$54 \div 9 \times 3 =$



Multiplying 3 digits by 1 digit

Multiply

$$\begin{array}{r} 572 \\ \times 3 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 932 \\ \times 3 \\ \hline \square, \square \square \square \end{array}$$



$$\begin{array}{r} 704 \\ \times 8 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 395 \\ \times 6 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 145 \\ \times 9 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 514 \\ \times 6 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 410 \\ \times 5 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 246 \\ \times 8 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 570 \\ \times 3 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 591 \\ \times 7 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 627 \\ \times 7 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 194 \\ \times 7 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 625 \\ \times 8 \\ \hline \square, \square \square \square \end{array}$$

$$\begin{array}{r} 908 \\ \times 7 \\ \hline \square, \square \square \square \end{array}$$

Multiplying 4 digits by 1 digit

Multiply and use the boxes

$$\begin{array}{r} 3,754 \\ \times \quad 3 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 6,763 \\ \times \quad 5 \\ \hline \square\square,\square\square\square \end{array}$$



$$\begin{array}{r} 5,360 \\ \times \quad 4 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 8,148 \\ \times \quad 7 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 5,143 \\ \times \quad 6 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 7,004 \\ \times \quad 3 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 2,304 \\ \times \quad 9 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 5,544 \\ \times \quad 3 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 1,398 \\ \times \quad 9 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 8,321 \\ \times \quad 8 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 3,159 \\ \times \quad 7 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 4,870 \\ \times \quad 5 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 2,008 \\ \times \quad 6 \\ \hline \square\square,\square\square\square \end{array}$$

$$\begin{array}{r} 7,820 \\ \times \quad 3 \\ \hline \square\square,\square\square\square \end{array}$$

Complete the table

	Round of the nearest:		
Number	Ten	Hundred	Thousand
555			
1,298			
45			
5,876			
4,009			
851			
3,288			
904			
6			
884			
5,546			
4,541			
3,499			
48			
4,345			

Mixed multiplication and subtraction

Calculate



$$9 \times 88 - 345 =$$

$$3 \times 56 - 105 =$$

$$6 \times 33 - 115 =$$

$$7 \times 51 - 109 =$$

$$3 \times 65 - 123 =$$

$$9 \times 22 - 154 =$$

$$7 \times 72 - 328 =$$

$$4 \times 37 - 107 =$$

$$8 \times 59 - 232 =$$

$$6 \times 96 - 432 =$$

$$9 \times 16 - 132 =$$

$$9 \times 40 - 200 =$$

$$8 \times 65 - 229 =$$

$$8 \times 42 - 171 =$$

$$8 \times 53 - 327 =$$

$$9 \times 75 - 134 =$$

$$5 \times 75 - 226 =$$

$$9 \times 47 - 275 =$$

$$5 \times 52 - 116 =$$

$$9 \times 30 - 232 =$$

$$9 \times 41 - 335 =$$

$$4 \times 88 - 265 =$$

$$7 \times 70 - 156 =$$

$$5 \times 54 - 143 =$$

$$8 \times 45 - 123 =$$

$$8 \times 73 - 265 =$$

$$9 \times 66 - 222 =$$

$$6 \times 44 - 105 =$$

$$7 \times 66 - 312 =$$

$$7 \times 32 - 180 =$$

$$9 \times 25 - 100 =$$

$$9 \times 34 - 209 =$$

$$9 \times 91 - 654 =$$

$$8 \times 39 - 177 =$$

Mixed division and multiplication

Calculate

$130 \div 5 \times 9 =$

$165 \div 3 \times 9 =$

$148 \div 4 \times 6 =$

$328 \div 8 \times 4 =$

$455 \div 7 \times 5 =$

$588 \div 6 \times 3 =$

$396 \div 6 \times 3 =$

$100 \div 4 \times 5 =$

$480 \div 5 \times 4 =$

$186 \div 3 \times 9 =$

$196 \div 2 \times 7 =$

$154 \div 2 \times 8 =$

$336 \div 8 \times 7 =$

$200 \div 8 \times 4 =$

$141 \div 3 \times 9 =$

$140 \div 4 \times 7 =$

$585 \div 9 \times 5 =$

$510 \div 6 \times 5 =$

$252 \div 7 \times 3 =$

$425 \div 5 \times 9 =$

$483 \div 7 \times 9 =$

$392 \div 4 \times 7 =$

$318 \div 6 \times 8 =$

$288 \div 4 \times 7 =$

$261 \div 3 \times 8 =$

$435 \div 5 \times 7 =$

$435 \div 5 \times 4 =$

$345 \div 5 \times 4 =$

$134 \div 2 \times 9 =$

$147 \div 7 \times 6 =$

$264 \div 3 \times 7 =$

$465 \div 5 \times 6 =$

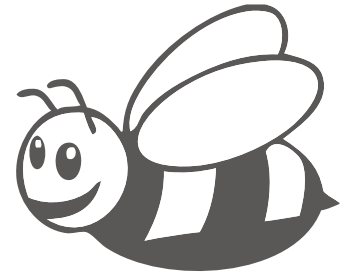
$144 \div 3 \times 8 =$



Compare the following fractions by using $>$, $<$ or $=$.

$$\frac{2}{3} \bigcirc \frac{1}{3}$$

$$\frac{3}{4} \bigcirc \frac{3}{8}$$



$$\frac{2}{4} \bigcirc \frac{1}{2}$$

$$\frac{1}{2} \bigcirc \frac{1}{3}$$

$$\frac{3}{6} \bigcirc \frac{2}{2}$$

$$\frac{4}{8} \bigcirc \frac{2}{4}$$

$$\frac{1}{3} \bigcirc \frac{2}{9}$$

$$\frac{2}{6} \bigcirc \frac{1}{3}$$

$$\frac{2}{5} \bigcirc \frac{2}{10}$$

$$\frac{3}{7} \bigcirc \frac{3}{6}$$

$$\frac{1}{3} \bigcirc \frac{1}{9}$$

$$\frac{2}{4} \bigcirc \frac{2}{5}$$

$$\frac{1}{5} \bigcirc \frac{2}{10}$$

$$\frac{3}{6} \bigcirc \frac{2}{3}$$

$$\frac{3}{9} \bigcirc \frac{2}{3}$$

$$\frac{6}{9} \bigcirc \frac{1}{3}$$

$$\frac{2}{3} \bigcirc \frac{9}{9}$$

$$\frac{1}{3} \bigcirc \frac{0}{6}$$

$$\frac{1}{4} \bigcirc \frac{5}{8}$$

$$\frac{2}{6} \bigcirc \frac{2}{3}$$

$$\frac{1}{3} \bigcirc \frac{4}{6}$$

$$\frac{2}{3} \bigcirc \frac{8}{9}$$

$$\frac{2}{4} \bigcirc \frac{2}{5}$$

Simplify the following fractions (lowest terms)

$$\frac{3}{6} =$$

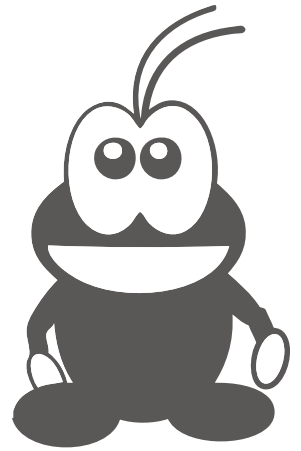
$$\frac{4}{10} =$$

$$\frac{2}{6} =$$

$$\frac{6}{8} =$$

$$\frac{6}{9} =$$

$$\frac{4}{14} =$$



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

$$\frac{6}{10} =$$

$$\frac{3}{9} =$$

$$\frac{4}{7} =$$

$$\frac{4}{8} =$$

$$\frac{8}{12} =$$

$$\frac{6}{12} =$$

$$\frac{20}{40} =$$

$$\frac{2}{10} =$$

$$\frac{6}{15} =$$

$$\frac{4}{20} =$$

$$\frac{12}{15} =$$

$$\frac{6}{18} =$$

$$\frac{6}{14} =$$

$$\frac{5}{15} =$$

$$\frac{16}{24} =$$

$$\frac{8}{16} =$$

$$\frac{4}{22} =$$

$$\frac{15}{18} =$$

$$\frac{8}{14} =$$

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

$$\frac{3}{21} =$$

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

$$\frac{8}{24} =$$

$$\frac{3}{30} =$$

$$\frac{6}{20} =$$

$$\frac{2}{28} =$$

$$\frac{7}{9} =$$

Addition and subtraction of fractions

Calculate and show your answers in the lowest terms

$$\frac{1}{6} + \frac{1}{6} =$$

$$\frac{2}{3} + \frac{1}{9} =$$

$$\frac{2}{4} + \frac{1}{8} =$$

$$\frac{1}{5} + \frac{1}{5} =$$

$$\frac{1}{6} + \frac{1}{12} =$$

$$\frac{1}{5} + \frac{1}{10} =$$

$$\frac{1}{3} + \frac{2}{6} =$$

$$\frac{1}{6} + \frac{1}{6} =$$

$$\frac{1}{3} + \frac{4}{12} =$$

$$\frac{1}{4} + \frac{4}{8} =$$

$$\frac{1}{2} + \frac{1}{6} =$$

$$\frac{1}{4} + \frac{5}{20} =$$

$$\frac{3}{5} + \frac{2}{10} =$$

$$\frac{1}{3} + \frac{1}{9} =$$

$$\frac{1}{2} + \frac{2}{8} =$$

$$\frac{3}{6} + \frac{1}{6} =$$

$$\frac{3}{6} + \frac{1}{12} =$$

$$\frac{3}{8} + \frac{3}{8} =$$

$$\frac{2}{8} + \frac{2}{4} =$$

$$\frac{1}{4} + \frac{1}{2} =$$

$$\frac{1}{8} + \frac{3}{8} =$$

$$\frac{2}{20} + \frac{4}{10} =$$

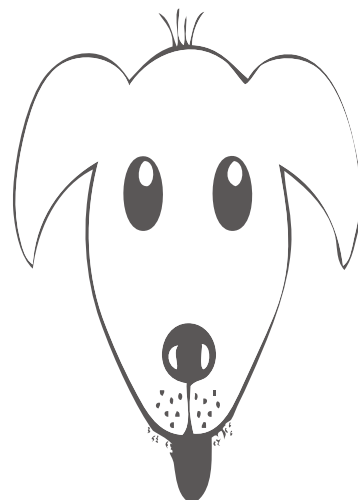
$$\frac{4}{6} + \frac{0}{6} =$$

$$\frac{1}{6} + \frac{1}{3} =$$

$$\frac{3}{12} + \frac{1}{4} =$$

$$\frac{5}{8} + \frac{1}{8} =$$

$$\frac{1}{5} + \frac{3}{10} =$$



Addition and subtraction of fractions

Calculate and show your answers in the lowest terms

$$\frac{5}{8} - \frac{1}{2} =$$

$$\frac{4}{3} - \frac{6}{6} =$$

$$\frac{6}{6} - \frac{1}{3} =$$

$$\frac{4}{6} - \frac{1}{2} =$$

$$\frac{3}{3} - \frac{1}{6} =$$

$$\frac{4}{8} - \frac{1}{4} =$$

$$\frac{2}{4} - \frac{2}{8} =$$

$$\frac{3}{4} - \frac{1}{8} =$$

$$\frac{9}{6} - \frac{2}{3} =$$

$$\frac{1}{2} - \frac{1}{6} =$$

$$\frac{1}{4} - \frac{1}{8} =$$

$$\frac{1}{3} - \frac{1}{6} =$$

$$\frac{4}{5} - \frac{1}{10} =$$

$$\frac{5}{6} - \frac{1}{6} =$$

$$\frac{1}{2} - \frac{1}{8} =$$

$$\frac{3}{5} - \frac{4}{10} =$$

$$\frac{6}{9} - \frac{1}{3} =$$

$$\frac{3}{6} - \frac{1}{3} =$$

$$\frac{3}{3} - \frac{2}{6} =$$

$$\frac{4}{3} - \frac{4}{6} =$$

$$\frac{5}{6} - \frac{1}{6} =$$

$$\frac{4}{6} - \frac{1}{3} =$$

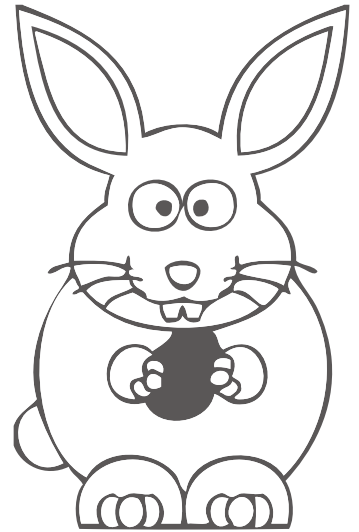
$$\frac{5}{8} - \frac{2}{4} =$$

$$\frac{3}{4} - \frac{1}{2} =$$

$$\frac{2}{3} - \frac{1}{6} =$$

$$\frac{1}{2} - \frac{1}{4} =$$

$$\frac{4}{5} - \frac{2}{10} =$$



Mixed numbers and improper fractions

Convert these mixed numbers into improper fractions.

$2\frac{1}{5} =$

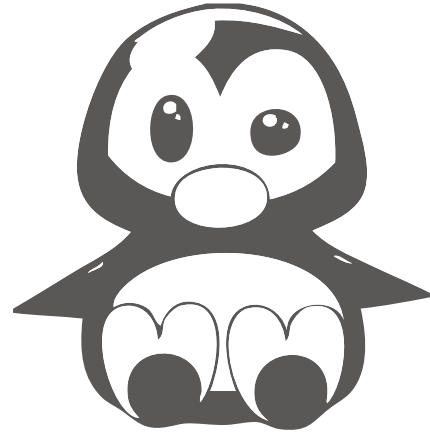
$3\frac{1}{4} =$

$1\frac{1}{2} =$

$5\frac{7}{7} =$

$4\frac{2}{5} =$

$2\frac{2}{6} =$



$5\frac{2}{4} =$

$6\frac{1}{5} =$

$1\frac{3}{9} =$

$2\frac{3}{5} =$

$2\frac{1}{6} =$

$3\frac{1}{5} =$

$5\frac{3}{3} =$

$4\frac{2}{8} =$

$1\frac{2}{8} =$

$2\frac{2}{5} =$

$3\frac{2}{5} =$

$5\frac{2}{5} =$

$2\frac{1}{4} =$

$5\frac{2}{3} =$

$3\frac{2}{8} =$

$1\frac{2}{9} =$

$9\frac{2}{4} =$

$7\frac{2}{3} =$

$5\frac{1}{3} =$

$4\frac{2}{8} =$

$2\frac{2}{6} =$

$1\frac{2}{7} =$

$1\frac{1}{7} =$

$4\frac{2}{6} =$

$5\frac{2}{6} =$

$1\frac{2}{3} =$

$3\frac{1}{2} =$

$3\frac{4}{6} =$

Improper fractions and mixed numbers

Convert these improper fractions into mixed numbers.

$$\frac{14}{5} =$$

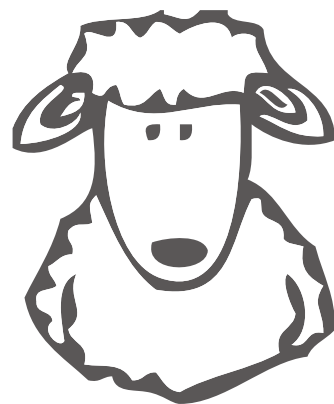
$$\frac{13}{4} =$$

$$\frac{6}{5} =$$

$$\frac{42}{7} =$$

$$\frac{22}{5} =$$

$$\frac{14}{6} =$$



$$\frac{22}{4} =$$

$$\frac{31}{5} =$$

$$\frac{10}{8} =$$

$$\frac{14}{6} =$$

$$\frac{15}{7} =$$

$$\frac{14}{4} =$$

$$\frac{28}{5} =$$

$$\frac{29}{7} =$$

$$\frac{11}{8} =$$

$$\frac{14}{6} =$$

$$\frac{23}{7} =$$

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

$$\frac{5}{2} =$$

$$\frac{22}{4} =$$

$$\frac{19}{6} =$$

$$\frac{11}{9} =$$

$$\frac{38}{4} =$$

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

$$\frac{21}{4} =$$

$$\frac{18}{4} =$$

$$\frac{10}{4} =$$

$$\frac{7}{5} =$$

$$\frac{8}{7} =$$

$$\frac{21}{5} =$$

$$\frac{32}{6} =$$

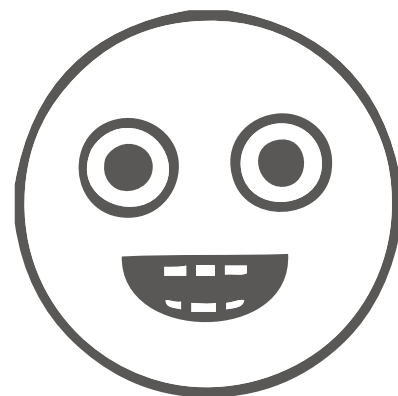
$$\frac{5}{3} =$$

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

$$\frac{22}{6} =$$

Multiplication of 3 digits by 2 digits

Calculate and show your workings!



$$\begin{array}{r} 234 \\ \times 15 \\ \hline \end{array}$$

$$\begin{array}{r} 245 \\ \times 12 \\ \hline \end{array}$$

$$\begin{array}{r} 354 \\ \times 17 \\ \hline \end{array}$$

$$\begin{array}{r} 250 \\ \times 31 \\ \hline \end{array}$$

$$\begin{array}{r} 340 \\ \times 14 \\ \hline \end{array}$$

$$\begin{array}{r} 186 \\ \times 35 \\ \hline \end{array}$$

$$\begin{array}{r} 671 \\ \times 11 \\ \hline \end{array}$$

$$\begin{array}{r} 144 \\ \times 27 \\ \hline \end{array}$$

$$\begin{array}{r} 125 \\ \times 15 \\ \hline \end{array}$$

$$\begin{array}{r} 230 \\ \times 24 \\ \hline \end{array}$$

$$\begin{array}{r} 350 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 150 \\ \times 29 \\ \hline \end{array}$$

$$\begin{array}{r} 175 \\ \times 24 \\ \hline \end{array}$$

$$\begin{array}{r} 200 \\ \times 18 \\ \hline \end{array}$$

$$\begin{array}{r} 180 \\ \times 48 \\ \hline \end{array}$$

$$\begin{array}{r} 300 \\ \times 20 \\ \hline \end{array}$$

$$\begin{array}{r} 400 \\ \times 20 \\ \hline \end{array}$$

$$\begin{array}{r} 210 \\ \times 22 \\ \hline \end{array}$$

$$\begin{array}{r} 160 \\ \times 22 \\ \hline \end{array}$$

Multiplying decimal numbers

Multiply.

$3.8 \times 8.2 =$

$7.2 \times 1.2 =$



$5.2 \times 3.8 =$

$7.5 \times 3.9 =$

$8.2 \times 3.2 =$

$2.7 \times 1.3 =$

$5.6 \times 4.3 =$

$2.3 \times 1.2 =$

$5 \times 3.4 =$

$9.9 \times 4.5 =$

$9.9 \times 2.1 =$

$2.4 \times 2.6 =$

$5 \times 4.9 =$

$7.2 \times 2.7 =$

$9.1 \times 4.1 =$

$8.8 \times 5.1 =$

$9.9 \times 8.9 =$

$7.5 \times 2.4 =$

$4.2 \times 2.2 =$

$5.8 \times 1.2 =$

$3.9 \times 1.2 =$

$7.1 \times 2.9 =$

$0.7 \times 0.2 =$

$3.1 \times 1.2 =$

$9.8 \times 4.3 =$

Dividing decimal numbers

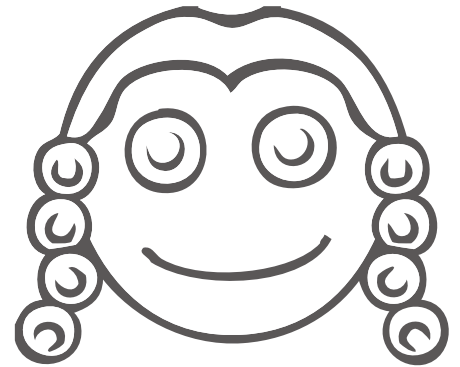
Divide.

$3.6 \div 9 =$

$2.8 \div 2 =$

$2.72 \div 8 =$

$8.5 \div 5 =$



$9.6 \div 3 =$

$5.6 \div 5 =$

$7.2 \div 8 =$

$2.36 \div 2 =$

$2.97 \div 9 =$

$8.2 \div 2 =$

$5 \div 4 =$

$9.9 \div 3 =$

$8.05 \div 7 =$

$2.1 \div 7 =$

$6.96 \div 6 =$

$9.6 \div 8 =$

$9.56 \div 2 =$

$1.62 \div 9 =$

$7.2 \div 6 =$

$2.5 \div 5 =$

$6.4 \div 4 =$

$8.1 \div 3 =$

$3.8 \div 5 =$

$3.2 \div 8 =$

$6 \div 4 =$

Addition and Subtraction of fractions

Calculate and show your answers in the lowest terms

$$\frac{1}{6} + \frac{1}{4} =$$

$$\frac{1}{3} + \frac{1}{2} =$$

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

$$\frac{1}{5} + \frac{1}{6} =$$

$$\frac{1}{6} + \frac{1}{10} =$$

$$\frac{1}{3} + \frac{2}{10} =$$



$$\frac{2}{3} + \frac{1}{5} =$$

$$\frac{1}{2} + \frac{1}{9} =$$

$$\frac{1}{3} + \frac{4}{10} =$$

$$\frac{1}{3} + \frac{4}{8} =$$

$$\frac{1}{2} + \frac{1}{5} =$$

$$\frac{1}{4} + \frac{5}{10} =$$

$$\frac{3}{6} + \frac{2}{10} =$$

$$\frac{1}{3} + \frac{1}{8} =$$

$$\frac{1}{2} + \frac{2}{7} =$$

$$\frac{3}{5} + \frac{1}{6} =$$

$$\frac{3}{6} + \frac{1}{15} =$$

$$\frac{3}{8} + \frac{3}{6} =$$

$$\frac{2}{7} + \frac{2}{4} =$$

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

$$\frac{1}{8} + \frac{3}{7} =$$

$$\frac{2}{10} + \frac{4}{15} =$$

$$\frac{4}{7} + \frac{0}{9} =$$

$$\frac{1}{6} + \frac{1}{9} =$$

$$\frac{3}{10} + \frac{1}{4} =$$

$$\frac{5}{6} + \frac{1}{8} =$$

$$\frac{1}{5} + \frac{3}{20} =$$

Addition and Subtraction of fractions

Calculate and show your answers in the lowest terms

$$\frac{2}{4} - \frac{1}{6} =$$

$$\frac{1}{2} - \frac{1}{4} =$$

$$\frac{3}{4} - \frac{1}{3} =$$

$$\frac{2}{5} - \frac{1}{6} =$$

$$\frac{2}{6} - \frac{1}{10} =$$

$$\frac{2}{3} - \frac{2}{10} =$$

$$\frac{1}{3} - \frac{1}{5} =$$

$$\frac{1}{2} - \frac{1}{8} =$$

$$\frac{1}{3} - \frac{1}{10} =$$

$$\frac{2}{3} - \frac{1}{8} =$$

$$\frac{1}{2} - \frac{1}{3} =$$

$$\frac{3}{4} - \frac{1}{10} =$$

$$\frac{2}{6} - \frac{2}{10} =$$

$$\frac{1}{3} - \frac{1}{7} =$$

$$\frac{1}{2} - \frac{1}{7} =$$

$$\frac{2}{5} - \frac{1}{6} =$$

$$\frac{4}{6} - \frac{1}{15} =$$

$$\frac{5}{8} - \frac{2}{6} =$$

$$\frac{2}{7} - \frac{1}{4} =$$

$$\frac{2}{4} - \frac{2}{8} =$$

$$\frac{4}{7} - \frac{3}{8} =$$

$$\frac{5}{10} - \frac{4}{15} =$$

$$\frac{6}{9} - \frac{0}{9} =$$

$$\frac{2}{6} - \frac{1}{9} =$$

$$\frac{4}{10} - \frac{1}{4} =$$

$$\frac{4}{6} - \frac{1}{8} =$$

$$\frac{2}{5} - \frac{3}{20} =$$



Addition of Mixed Numbers

Calculate and show your answers in the lowest terms

$$2\frac{1}{2} + 1\frac{3}{5} =$$

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

$$1\frac{3}{4} + 1\frac{4}{6} =$$

$$4\frac{4}{5} + 1\frac{1}{3} =$$

$$5\frac{3}{7} + 1\frac{1}{6} =$$

$$1\frac{1}{8} + 1\frac{2}{9} =$$

$$3\frac{1}{8} + 1\frac{2}{6} =$$

$$5\frac{1}{9} + 1\frac{1}{6} =$$

$$3\frac{2}{4} + 2\frac{6}{9} =$$

$$3\frac{4}{5} + 2\frac{1}{6} =$$

$$3\frac{1}{4} + 1\frac{5}{6} =$$

$$2\frac{1}{4} + 6\frac{5}{6} =$$

$$4\frac{2}{4} + 1\frac{1}{6} =$$

$$1\frac{3}{4} + 4\frac{2}{6} =$$

$$7\frac{1}{4} + 1\frac{6}{7} =$$

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

$$4\frac{1}{3} + 4\frac{5}{6} =$$

$$2\frac{7}{8} + 4\frac{1}{6} =$$

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

$$3\frac{2}{4} + 2\frac{5}{6} =$$

$$3\frac{1}{5} + 2\frac{1}{2} =$$

$$2\frac{1}{2} + 2\frac{4}{6} =$$

$$1\frac{1}{8} + 1\frac{8}{9} =$$

$$5\frac{3}{4} + 1\frac{2}{6} =$$



Multiplying Fractions

Multiply and express your answers in mixed numbers

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

$$\frac{2}{4} \times 7 =$$

$$\frac{2}{3} \times 5 =$$

$$\frac{2}{6} \times 7 =$$

$$\frac{1}{5} \times 9 =$$

$$\frac{1}{6} \times 7 =$$



$$\frac{1}{2} \times 8 =$$

$$\frac{2}{3} \times 4 =$$

$$\frac{1}{4} \times 6 =$$

$$\frac{1}{3} \times 7 =$$

$$\frac{5}{3} \times 4 =$$

$$\frac{1}{2} \times 7 =$$

$$\frac{2}{3} \times 5 =$$

$$\frac{2}{3} \times 10 =$$

$$\frac{1}{6} \times 9 =$$

$$\frac{5}{3} \times 3 =$$

$$\frac{1}{5} \times 8 =$$

$$\frac{1}{6} \times 9 =$$

$$\frac{3}{8} \times 4 =$$

$$\frac{2}{7} \times 5 =$$

$$\frac{2}{6} \times 9 =$$

$$\frac{1}{6} \times 24 =$$

$$\frac{1}{4} \times 31 =$$

$$\frac{4}{7} \times 4 =$$

$$\frac{3}{5} \times 4 =$$

Multiplying Fractions

Multiply and express your answers in the lowest terms

$$\frac{1}{3} \times \frac{1}{3} =$$

$$\frac{1}{2} \times \frac{1}{3} =$$

$$\frac{2}{4} \times \frac{2}{4} =$$

$$\frac{2}{9} \times \frac{3}{7} =$$

$$\frac{3}{7} \times \frac{1}{6} =$$

$$\frac{1}{7} \times \frac{6}{7} =$$

$$\frac{1}{2} \times \frac{1}{2} =$$

$$\frac{1}{5} \times \frac{4}{6} =$$

$$\frac{2}{7} \times \frac{2}{7} =$$

$$\frac{1}{5} \times \frac{4}{2} =$$

$$\frac{4}{3} \times \frac{2}{3} =$$

$$\frac{4}{3} \times \frac{1}{3} =$$

$$\frac{2}{3} \times \frac{2}{3} =$$

$$\frac{1}{3} \times \frac{2}{6} =$$

$$\frac{1}{3} \times \frac{2}{8} =$$

$$\frac{1}{3} \times \frac{5}{6} =$$

$$\frac{1}{7} \times \frac{3}{5} =$$

$$\frac{3}{5} \times \frac{3}{4} =$$

$$\frac{2}{7} \times \frac{5}{7} =$$

$$\frac{5}{6} \times \frac{2}{3} =$$

$$\frac{2}{6} \times \frac{2}{3} =$$

$$\frac{1}{4} \times \frac{3}{5} =$$

$$\frac{2}{3} \times \frac{1}{3} =$$

$$\frac{1}{4} \times \frac{6}{8} =$$



Dividing Fractions

Divide and express your answers in mixed numbers and the lowest terms

$$\frac{1}{3} \div \frac{1}{4} =$$

$$\frac{1}{2} \div \frac{1}{3} =$$

$$\frac{2}{4} \div \frac{1}{5} =$$

$$\frac{2}{9} \div \frac{3}{7} =$$

$$\frac{3}{7} \div \frac{1}{6} =$$

$$\frac{6}{7} \div \frac{1}{4} =$$

$$\frac{1}{2} \div \frac{1}{7} =$$

$$\frac{1}{5} \div \frac{1}{6} =$$

$$\frac{5}{7} \div \frac{1}{9} =$$

$$\frac{4}{5} \div \frac{1}{2} =$$

$$\frac{4}{5} \div \frac{1}{3} =$$

$$\frac{1}{2} \div \frac{1}{9} =$$

$$\frac{2}{7} \div \frac{2}{8} =$$

$$\frac{1}{3} \div \frac{1}{7} =$$

$$\frac{1}{3} \div \frac{1}{8} =$$

$$\frac{2}{3} \div \frac{2}{5} =$$

$$\frac{5}{7} \div \frac{1}{5} =$$

$$\frac{3}{5} \div \frac{1}{4} =$$

$$\frac{5}{7} \div \frac{2}{7} =$$

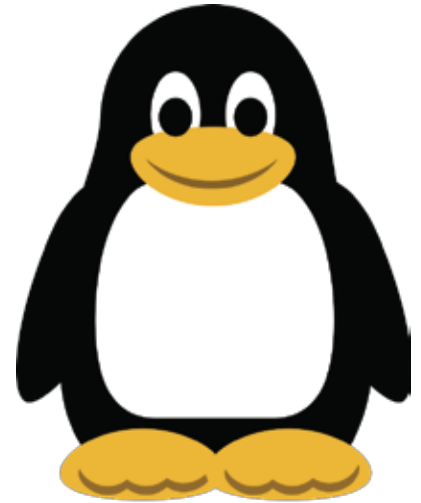
$$\frac{2}{6} \div \frac{2}{3} =$$

$$\frac{2}{6} \div \frac{1}{8} =$$

$$\frac{3}{4} \div \frac{3}{5} =$$

$$\frac{2}{3} \div \frac{1}{7} =$$

$$\frac{1}{4} \div \frac{1}{9} =$$



Calculate the following percentages

$75\% \text{ of } 150 =$

$30\% \text{ of } 180 =$

$25\% \text{ of } 170 =$

$20\% \text{ of } 160 =$

$15\% \text{ of } 150 =$

$50\% \text{ of } 145 =$

$45\% \text{ of } 200 =$

$10\% \text{ of } 198 =$

$60\% \text{ of } 450 =$

$40\% \text{ of } 325 =$

$60\% \text{ of } 400 =$

$73\% \text{ of } 250 =$

$25\% \text{ of } 190 =$

$65\% \text{ of } 150 =$

$50\% \text{ of } 153 =$

$50\% \text{ of } 110 =$

$95\% \text{ of } 160 =$

$75\% \text{ of } 500 =$

$65\% \text{ of } 320 =$

$35\% \text{ of } 170 =$

$88\% \text{ of } 150 =$

$40\% \text{ of } 100 =$

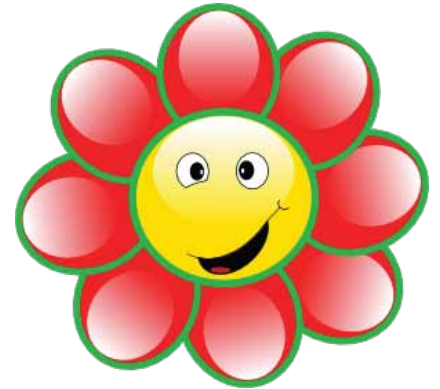
$33\% \text{ of } 150 =$

$75\% \text{ of } 270 =$

$90\% \text{ of } 250 =$

$47\% \text{ of } 250 =$

$23\% \text{ of } 200 =$



Dividing Mixed Numbers

Divide and express your answers in mixed numbers if possible

$$2\frac{1}{2} \div 1\frac{1}{3} =$$

$$4\frac{1}{3} \div 2\frac{1}{7} =$$

$$1\frac{3}{4} \div 1\frac{1}{3} =$$

$$1\frac{1}{6} \div 3\frac{1}{2} =$$

$$2\frac{1}{3} \div 1\frac{4}{5} =$$

$$1\frac{3}{8} \div 2\frac{1}{4} =$$

$$3\frac{1}{3} \div 1\frac{4}{5} =$$

$$2\frac{1}{4} \div 1\frac{1}{5} =$$

$$2\frac{1}{7} \div 7\frac{1}{2} =$$

$$2\frac{1}{7} \div 2\frac{3}{4} =$$

$$1\frac{3}{5} \div 1\frac{3}{8} =$$

$$7\frac{1}{2} \div 3\frac{3}{4} =$$

$$1\frac{1}{5} \div 1\frac{4}{6} =$$

$$1\frac{1}{2} \div 1\frac{1}{9} =$$

$$1\frac{1}{6} \div 1\frac{8}{9} =$$

$$4\frac{1}{4} \div 3\frac{1}{2} =$$

$$4\frac{1}{5} \div 1\frac{3}{4} =$$

$$5\frac{1}{2} \div 1\frac{1}{3} =$$

$$1\frac{3}{4} \div 2\frac{1}{2} =$$

$$8\frac{1}{2} \div 1\frac{2}{3} =$$

$$4\frac{1}{8} \div 2\frac{1}{3} =$$

$$1\frac{5}{6} \div 1\frac{1}{3} =$$

$$6\frac{1}{2} \div 1\frac{1}{8} =$$

$$3\frac{1}{3} \div 2\frac{1}{7} =$$

$$7\frac{1}{2} \div 6\frac{1}{2} =$$

$$4\frac{1}{3} \div 2\frac{1}{6} =$$

$$4\frac{1}{2} \div 9\frac{1}{4} =$$



Greatest Common Factors

Find the greatest common factors of the following sets of numbers.

$12 \text{ and } 20 = \underline{\hspace{2cm}}$

$13 \text{ and } 65 = \underline{\hspace{2cm}}$

$35 \text{ and } 18 = \underline{\hspace{2cm}}$

$12 \text{ and } 21 = \underline{\hspace{2cm}}$

$24 \text{ and } 96 = \underline{\hspace{2cm}}$

$15 \text{ and } 75 = \underline{\hspace{2cm}}$

$12 \text{ and } 56 = \underline{\hspace{2cm}}$

$14 \text{ and } 77 = \underline{\hspace{2cm}}$

$11 \text{ and } 78 = \underline{\hspace{2cm}}$

$12 \text{ and } 28 = \underline{\hspace{2cm}}$

$17 \text{ and } 68 = \underline{\hspace{2cm}}$

$18 \text{ and } 28 = \underline{\hspace{2cm}}$

$19 \text{ and } 95 = \underline{\hspace{2cm}}$

$12 \text{ and } 23 = \underline{\hspace{2cm}}$

$14 \text{ and } 84 = \underline{\hspace{2cm}}$

$12 \text{ and } 66 = \underline{\hspace{2cm}}$

$19 \text{ and } 48 = \underline{\hspace{2cm}}$

$17 \text{ and } 68 = \underline{\hspace{2cm}}$

$14 \text{ and } 87 = \underline{\hspace{2cm}}$

$12 \text{ and } 26 = \underline{\hspace{2cm}}$

$30 \text{ and } 45 = \underline{\hspace{2cm}}$

$21 \text{ and } 33 = \underline{\hspace{2cm}}$

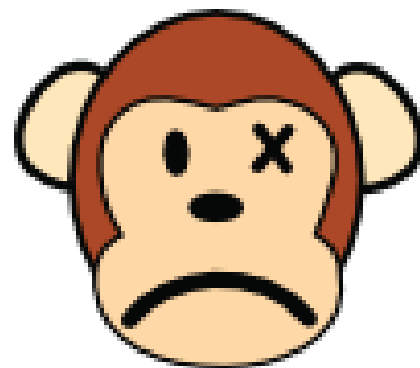
$15 \text{ and } 95 = \underline{\hspace{2cm}}$

$15 \text{ and } 90 = \underline{\hspace{2cm}}$

$16 \text{ and } 64 = \underline{\hspace{2cm}}$

$12 \text{ and } 30 = \underline{\hspace{2cm}}$

$24 \text{ and } 30 = \underline{\hspace{2cm}}$



Calculate the percents of each number (round off to nearest tenth)

14 is 12 % of _____

25 is 3 % of _____

35 is 15 % of _____

20 is 17 % of _____

18 is 28 % of _____

15 is 35 % of _____

21 is 20 % of _____

45 is 12 % of _____

88 is 15 % of _____

75 is 25 % of _____

22 is 30 % of _____

98 is 50 % of _____

32 is 34 % of _____

24 is 12 % of _____



25 is 22 % of _____

90 is 15 % of _____

16 is 64 % of _____

13 is 60 % of _____

36 is 40 % of _____

82 is 25 % of _____

67 is 23 % of _____

72 is 12 % of _____

12 is 16 % of _____

18 is 80 % of _____

26 is 45 % of _____

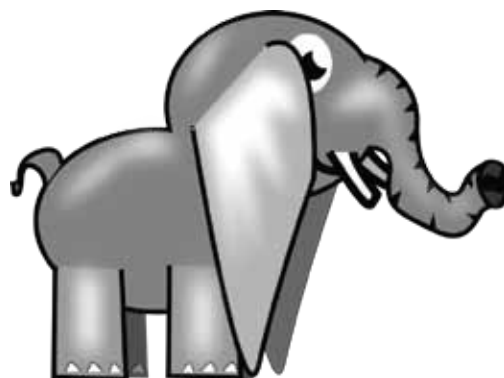
Calculate

$$2^2 =$$

$$4^4 =$$

$$2^3 =$$

$$5^2 =$$



$$3^2 =$$

$$6^2 =$$

$$3^6 =$$

$$1^2 =$$

$$2^4 =$$

$$3^3 =$$

$$9^0 =$$

$$3^0 =$$

$$2^5 =$$

$$4^3 =$$

$$8^2 =$$

$$1^3 =$$

$$4^2 =$$

$$3^1 =$$

$$6^2 =$$

$$7^2 =$$

$$2^0 =$$

$$7^0 =$$

$$5^2 =$$

$$2^9 =$$

$$5^3 =$$

$$4^1 =$$

$$9^2 =$$

$$7^3 =$$

$$7^1 =$$

$$6^1 =$$

$$2^8 =$$

$$8^0 =$$

$$2^6 =$$

$$3^5 =$$

$$9^3 =$$

$$1^5 =$$

$$4^0 =$$

$$2^7 =$$

$$8^3 =$$

$$5^4 =$$

Calculate the square roots of the following numbers

$$\sqrt{9} =$$

$$\sqrt{100} =$$



$$\sqrt{25} =$$

$$\sqrt{625} =$$

$$\sqrt{441} =$$

$$\sqrt{4} =$$

$$\sqrt{289} =$$

$$\sqrt{196} =$$

$$\sqrt{64} =$$

$$\sqrt{361} =$$

$$\sqrt{16} =$$

$$\sqrt{576} =$$

$$\sqrt{324} =$$

$$\sqrt{225} =$$

$$\sqrt{81} =$$

$$\sqrt{256} =$$

$$\sqrt{121} =$$

$$\sqrt{144} =$$

$$\sqrt{49} =$$

$$\sqrt{1} =$$

$$\sqrt{36} =$$

$$\sqrt{169} =$$

$$\sqrt{400} =$$

$$\sqrt{529} =$$

$$\sqrt{484} =$$

Between which 2 whole numbers are the following square roots?

$\sqrt{110}$ is between ____ and ____

$\sqrt{150}$ is between ____ and ____

$\sqrt{40}$ is between ____ and ____

$\sqrt{200}$ is between ____ and ____

$\sqrt{70}$ is between ____ and ____

$\sqrt{230}$ is between ____ and ____

$\sqrt{50}$ is between ____ and ____

$\sqrt{122}$ is between ____ and ____

$\sqrt{60}$ is between ____ and ____

$\sqrt{300}$ is between ____ and ____



$\sqrt{10}$ is between ____ and ____

$\sqrt{550}$ is between ____ and ____

$\sqrt{30}$ is between ____ and ____

$\sqrt{270}$ is between ____ and ____

$\sqrt{500}$ is between ____ and ____

$\sqrt{85}$ is between ____ and ____

$\sqrt{190}$ is between ____ and ____

$\sqrt{424}$ is between ____ and ____

Calculations with 3 Integers

Calculate

$$-12 \times 4 \times -12 =$$

$$15 + -4 \times -10 =$$

$$12 + 7 \times -12 =$$

$$-20 \times -4 \times -12 =$$

$$-72 \times -2 + -52 =$$

$$-20 \times -5 \times 9 =$$

$$-15 \times 3 - -12 =$$

$$12 - 4 \times 19 =$$

$$-19 \times -3 - -99 =$$

$$-15 + 4 \times -12 =$$

$$-14 - 9 \times -12 =$$

$$20 + 8 \times -10 =$$



$$-12 \times 2 \times -11 =$$

$$-25 \times 4 + -12 =$$

$$-12 + 4 - -12 =$$

$$-16 \times 2 \times -10 =$$

$$11 \times 2 + -12 =$$

$$-14 + 4 + -12 =$$

$$-12 \times 5 \times -12 =$$

$$12 + -6 \times -24 =$$

$$-12 \times 3 \times -16 =$$

$$-15 \times -3 + 99 =$$