

حلول تمارين درس الكسور والعمليات عليها -6-

(2) الكسور:

2.9 مقارنة الكسور:

حل التمرين 1:

$67 < 75 \Rightarrow \frac{67}{87} < \frac{75}{87}$	$89 > 87 \Rightarrow \frac{67}{89} < \frac{67}{87}$	$72 > 35 \Rightarrow \frac{5}{72} < \frac{5}{35}$
$10 > 1 \Rightarrow \frac{10}{93} > \frac{1}{93}$	$93 > 84 \Rightarrow \frac{112}{93} < \frac{112}{84}$	$64 < 90 \Rightarrow \frac{14}{64} > \frac{14}{90}$
$12 < 17 \Rightarrow \frac{12}{87} < \frac{17}{87}$	$71 < 95 \Rightarrow \frac{5}{71} > \frac{5}{95}$	$97 > 96 \Rightarrow \frac{97}{17} > \frac{96}{17}$
$745 > 724 \Rightarrow \frac{494}{745} < \frac{494}{724}$		

حل التمرين 2:

$\left. \begin{array}{l} \frac{5}{7} = \frac{5 \times 7}{7 \times 7} = \frac{35}{49} \\ 34 < 35 \end{array} \right\} \Rightarrow \frac{34}{49} > \frac{5}{7}$	$\left. \begin{array}{l} \frac{7}{2} = \frac{7 \times 9}{2 \times 9} = \frac{63}{18} \\ 61 < 63 \end{array} \right\} \Rightarrow \frac{61}{18} < \frac{7}{2}$
$\left. \begin{array}{l} \frac{11}{9} = \frac{11 \times 8}{9 \times 8} = \frac{88}{72} \\ 88 < 89 \end{array} \right\} \Rightarrow \frac{11}{9} < \frac{89}{72}$	$\left. \begin{array}{l} \frac{8}{7} = \frac{8 \times 3}{7 \times 3} = \frac{24}{21} \\ 25 > 24 \end{array} \right\} \Rightarrow \frac{25}{21} > \frac{8}{7}$

حل التمرين 3:

$\left. \begin{array}{l} \frac{7}{4} = \frac{7 \times 7}{4 \times 7} = \frac{49}{28} \\ 49 < 51 \end{array} \right\} \Rightarrow \frac{7}{4} < \frac{51}{28}$	$\left. \begin{array}{l} \frac{3}{2} = \frac{3 \times 8}{2 \times 8} = \frac{24}{16} \\ 25 > 24 \end{array} \right\} \Rightarrow \frac{25}{16} > \frac{3}{2}$
$\left. \begin{array}{l} \frac{5}{3} = \frac{5 \times 7}{3 \times 7} = \frac{35}{21} \\ 37 > 35 \end{array} \right\} \Rightarrow \frac{37}{21} > \frac{5}{3}$	$\left. \begin{array}{l} 8 = \frac{8 \times 5}{1 \times 5} = \frac{40}{5} \\ 40 > 39 \end{array} \right\} \Rightarrow 8 > \frac{39}{5}$

حل التمرين 4:

$\left. \begin{array}{l} \frac{5}{9} = \frac{50}{90} \\ 50 < 57 \end{array} \right\} \Rightarrow \frac{5}{9} < \frac{57}{90}$	$\left. \begin{array}{l} \frac{2}{10} = \frac{16}{80} \\ 16 > 7 \end{array} \right\} \Rightarrow \frac{2}{10} > \frac{7}{80}$
$\left. \begin{array}{l} \frac{28}{9} = \frac{84}{27} \\ 84 > 80 \end{array} \right\} \Rightarrow \frac{28}{9} > \frac{80}{27}$	$\left. \begin{array}{l} \frac{7}{10} = \frac{70}{100} \\ 70 < 76 \end{array} \right\} \Rightarrow \frac{7}{10} < \frac{76}{100}$

حل التمرين 5:

$\left. \begin{array}{l} \frac{38}{12} = \frac{19 \times \cancel{2}}{6 \times \cancel{2}} = \frac{19}{6} \\ 19 < 20 \end{array} \right\} \Rightarrow \frac{19}{6} < \frac{20}{6}$	$\left. \begin{array}{l} \frac{3}{5} = \frac{3 \times 6}{5 \times 6} = \frac{18}{30} \\ 19 > 18 \end{array} \right\} \Rightarrow \frac{19}{30} > \frac{3}{5}$
$\left. \begin{array}{l} \frac{7}{3} = \frac{7 \times 9}{3 \times 9} = \frac{63}{27} \\ 63 < 65 \end{array} \right\} \Rightarrow \frac{7}{3} < \frac{65}{27}$	$\left. \begin{array}{l} \frac{5}{4} = \frac{5 \times 3}{4 \times 3} = \frac{15}{12} \\ 15 > 13 \end{array} \right\} \Rightarrow \frac{5}{4} > \frac{13}{12}$

2.10 مقارنة كسرين باستعمال عدد صحيح:

حل التمرين 1:

$61 < 63 \Rightarrow \frac{61}{63} < 1$	$56 > 54 \Rightarrow \frac{56}{54} > 1$	$56 < 58 \Rightarrow \frac{56}{58} < 1$
$786 < 795 \Rightarrow \frac{786}{795} < 1$	$76 < 79 \Rightarrow \frac{76}{79} < 1$	$18 < 679 \Rightarrow \frac{18}{679} < 1$

حل التمرين 2:

$8 < 20 \Rightarrow \frac{8}{20} < 1$	$2 < 13 \Rightarrow \frac{2}{13} < 1$	$12 > 7 \Rightarrow \frac{12}{7} > 1$
$9 > 8 \Rightarrow \frac{9}{8} > 1$	$26 > 5 \Rightarrow \frac{26}{5} > 1$	$16 < 25 \Rightarrow \frac{16}{25} < 1$

حل التمرين 3:

$\left. \begin{array}{l} \frac{3}{4} < 1 \\ \frac{9}{7} > 1 \end{array} \right\} \Rightarrow \frac{3}{4} < \frac{9}{7}$	$\left. \begin{array}{l} \frac{10}{9} > 1 \\ \frac{5}{7} < 1 \end{array} \right\} \Rightarrow \frac{10}{9} > \frac{5}{7}$	$\left. \begin{array}{l} \frac{3}{4} < 1 \\ \frac{5}{3} > 1 \end{array} \right\} \Rightarrow \frac{3}{4} < \frac{5}{3}$
$\left. \begin{array}{l} \frac{12}{5} > 2 \\ \frac{8}{7} < 2 \end{array} \right\} \Rightarrow \frac{12}{5} > \frac{8}{7}$	$\left. \begin{array}{l} \frac{19}{6} > 3 \\ \frac{8}{5} < 3 \end{array} \right\} \Rightarrow \frac{19}{6} > \frac{8}{5}$	$\left. \begin{array}{l} \frac{25}{6} > 1 \\ \frac{8}{25} < 1 \end{array} \right\} \Rightarrow \frac{25}{6} > \frac{8}{25}$