

حلول تمارين درس الكسور والعمليات عليها -3-

(2) الكسور:

2.3 تساوي كسرين:

حل التمرين 1:

$\frac{40}{90} = \frac{4 \times \cancel{10}}{9 \times \cancel{10}} = \frac{4}{9}$	$\frac{18}{72} = \frac{1 \times \cancel{18}}{4 \times \cancel{18}} = \frac{1}{4}$	$\frac{16}{24} = \frac{2 \times \cancel{8}}{3 \times \cancel{8}} = \frac{2}{3}$
$\frac{40}{90} = \frac{40 \times 2}{90 \times 2} = \frac{80}{180}$	$\frac{18}{72} = \frac{18 \times 2}{72 \times 2} = \frac{36}{144}$	$\frac{16}{24} = \frac{16 \times 2}{24 \times 2} = \frac{32}{48}$
$\frac{125}{75} = \frac{5 \times \cancel{25}}{3 \times \cancel{25}} = \frac{5}{3}$	$\frac{45}{105} = \frac{3 \times \cancel{15}}{7 \times \cancel{15}} = \frac{3}{7}$	$\frac{96}{69} = \frac{32 \times \cancel{3}}{23 \times \cancel{3}} = \frac{32}{23}$
$\frac{125}{75} = \frac{125 \times 2}{75 \times 2} = \frac{250}{150}$	$\frac{45}{105} = \frac{45 \times 2}{105 \times 2} = \frac{90}{210}$	$\frac{96}{69} = \frac{96 \times 2}{69 \times 2} = \frac{192}{138}$

ملاحظة: يوجد عدد لا متناهي من الكسور التي تساوي كل كسر.

حل التمرين 2:

$\frac{9}{4} = \frac{36}{16}$	$\frac{8}{5} = \frac{40}{25}$	$\frac{6}{8} = \frac{30}{40}$	$\frac{9}{8} = \frac{54}{48}$	$\frac{3}{2} = \frac{18}{12}$
$\frac{1}{3} = \frac{4}{12}$	$\frac{2}{5} = \frac{18}{45}$	$\frac{0,7}{0,5} = \frac{49}{35}$	$\frac{6}{3} = \frac{54}{27}$	$\frac{7}{4} = \frac{63}{36}$
$\frac{4}{18} = \frac{2}{9}$	$\frac{4}{7} = \frac{8}{14}$	$\frac{3}{7} = \frac{18}{42}$	$\frac{6}{5} = \frac{24}{20}$	$\frac{81}{90} = \frac{9}{10}$

حل التمرين 3:

$\frac{7}{3} = \frac{35}{15}$	$\frac{9}{27} = \frac{1}{3}$	$\frac{5}{3} \neq \frac{15}{24}$	$\frac{20}{27} \neq \frac{5}{3}$	$\frac{3}{4} = \frac{27}{36}$
$\frac{7}{3} = \frac{56}{24}$	$\frac{36}{63} = \frac{4}{7}$	$\frac{3}{5} \neq \frac{6}{50}$	$\frac{81}{80} \neq \frac{9}{10}$	$\frac{7}{6} = \frac{56}{48}$

حل التمرين 4:

$\frac{9}{12} = \frac{3}{4}$	$\frac{60}{48} = \frac{5}{4}$	$\frac{15}{35} = \frac{3}{7}$	$\frac{650}{75} = \frac{26}{3}$
$\frac{12}{24} = \frac{1}{2}$	$\frac{7}{4} = \frac{175}{100}$	$\frac{42}{30} = \frac{7}{5}$	$\frac{6}{35} = \frac{12}{70}$

حل التمرين 5:

$$1) \frac{5}{6} = \frac{10}{12} = \frac{15}{18} = \frac{30}{36}$$

$$2) \frac{2}{5} = \frac{4}{10} = \frac{6}{15} = \frac{20}{50} = \frac{18}{45}$$

2.4 تبسيط الكسور:حل التمرين 1:

$\frac{95}{65} = \frac{19 \times \cancel{5}}{13 \times \cancel{5}} = \frac{19}{13}$	$\frac{32}{58} = \frac{16 \times \cancel{2}}{29 \times \cancel{2}} = \frac{16}{29}$	$\frac{21}{99} = \frac{7 \times 3}{33 \times \cancel{3}} = \frac{7}{33}$	$\frac{8}{42} = \frac{4 \times \cancel{2}}{21 \times \cancel{2}} = \frac{4}{21}$
$\frac{24}{70} = \frac{12 \times \cancel{2}}{35 \times \cancel{2}} = \frac{12}{35}$	$\frac{21}{33} = \frac{7 \times \cancel{3}}{11 \times \cancel{3}} = \frac{7}{11}$	$\frac{65}{39} = \frac{5 \times \cancel{13}}{3 \times \cancel{13}} = \frac{5}{3}$	$\frac{68}{46} = \frac{34 \times \cancel{2}}{23 \times \cancel{2}} = \frac{34}{23}$
$\frac{90}{64} = \frac{45 \times \cancel{2}}{32 \times \cancel{2}} = \frac{45}{32}$		$\frac{85}{51} = \frac{5 \times \cancel{17}}{3 \times \cancel{17}} = \frac{5}{3}$	

حل التمرين 2:

$\frac{78}{20} = \frac{39 \times \cancel{2}}{10 \times \cancel{2}} = \frac{39}{10}$	$\frac{42}{52} = \frac{21 \times \cancel{2}}{26 \times \cancel{2}} = \frac{21}{26}$	$\frac{80}{25} = \frac{16 \times \cancel{5}}{5 \times \cancel{5}} = \frac{16}{5}$
$\frac{35}{75} = \frac{7 \times \cancel{5}}{15 \times \cancel{5}} = \frac{7}{15}$	$\frac{66}{39} = \frac{22 \times \cancel{3}}{13 \times \cancel{3}} = \frac{22}{13}$	$\frac{52}{8} = \frac{13 \times \cancel{4}}{2 \times \cancel{4}} = \frac{13}{2}$
$\frac{32}{68} = \frac{8 \times \cancel{4}}{17 \times \cancel{4}} = \frac{8}{17}$	$\frac{116}{8} = \frac{29 \times \cancel{4}}{2 \times \cancel{4}} = \frac{29}{2}$	$\frac{72}{81} = \frac{8 \times \cancel{9}}{9 \times \cancel{9}} = \frac{8}{9}$
	$\frac{102}{30} = \frac{17 \times \cancel{6}}{5 \times \cancel{6}} = \frac{17}{5}$	

Latreche MIFA