

تمارين درس الكسور والعمليات عليها  
-الجزء الرابع-

(2) الكسور:2.3. تساوي كسرين:التمرين 1:

فيما يلي أوجد كسرين مساويين لكل كسر:

$$\frac{40}{90} ; \frac{18}{72} ; \frac{16}{24} ; \frac{125}{75} ; \frac{45}{105} ; \frac{96}{69}$$

(الحل)التمرين 2:

أكمل الفراغات للحصول على كسر مساوي للكسر المقترح:

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

(الحل)التمرين 3:

أكمل الفراغات ب: = أو ≠ :

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

(الحل)

التمرين 4:

فيما يلي أوجد الإجابة الصحيحة:

|                                                                |                                                                   |
|----------------------------------------------------------------|-------------------------------------------------------------------|
| $\frac{9}{12} = \frac{1}{4}$ ; $\frac{3}{4}$ ; $\frac{6}{9}$   | $\frac{60}{48} = \frac{2}{5}$ ; $\frac{5}{4}$ ; $\frac{3}{5}$     |
| $\frac{15}{35} = \frac{1}{3}$ ; $\frac{1}{20}$ ; $\frac{3}{7}$ | $\frac{650}{75} = \frac{11}{3}$ ; $\frac{26}{3}$ ; $\frac{13}{3}$ |
| $\frac{12}{24} = \frac{5}{4}$ ; $\frac{1}{2}$ ; $\frac{6}{9}$  | $\frac{7}{4} = \frac{1}{3}$ ; $\frac{175}{100}$ ; $\frac{49}{16}$ |
| $\frac{42}{30} = \frac{7}{5}$ ; $\frac{3}{5}$ ; $\frac{9}{5}$  | $\frac{6}{35} = \frac{12}{70}$ ; $\frac{12}{35}$ ; $\frac{6}{70}$ |

(الحل)

التمرين 5:(1) فيما يلي، ما هي الكسور التي تساوي  $\frac{5}{6}$  :

|                 |                 |                    |                 |                 |
|-----------------|-----------------|--------------------|-----------------|-----------------|
| $\frac{15}{18}$ | $\frac{10}{12}$ | $\frac{1,5}{0,18}$ | $\frac{20}{28}$ | $\frac{30}{36}$ |
|-----------------|-----------------|--------------------|-----------------|-----------------|

(2) فيما يلي، ما هي الكسور التي تساوي  $\frac{2}{5}$  :

|               |                |                 |                |                |                 |                 |                  |
|---------------|----------------|-----------------|----------------|----------------|-----------------|-----------------|------------------|
| $\frac{3}{4}$ | $\frac{4}{10}$ | $\frac{12}{60}$ | $\frac{9}{12}$ | $\frac{6}{15}$ | $\frac{20}{50}$ | $\frac{18}{45}$ | $\frac{60}{120}$ |
|---------------|----------------|-----------------|----------------|----------------|-----------------|-----------------|------------------|

(الحل)

2.4. تبسيط الكسور:التمرين 1:

بسّط الكسور التالية إلى أبعد حد ممكن:

|                 |                 |                 |                |                 |
|-----------------|-----------------|-----------------|----------------|-----------------|
| $\frac{95}{65}$ | $\frac{32}{58}$ | $\frac{21}{99}$ | $\frac{8}{42}$ | $\frac{24}{70}$ |
|-----------------|-----------------|-----------------|----------------|-----------------|

(الحل)

التمرين 2:

بسّط الكسور التالية إلى أبعد حد ممكن:

|                 |                 |                 |                 |                 |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| $\frac{21}{33}$ | $\frac{65}{39}$ | $\frac{68}{46}$ | $\frac{90}{64}$ | $\frac{85}{51}$ |
|-----------------|-----------------|-----------------|-----------------|-----------------|

(الحل)التمرين 3:

بسّط الكسور التالية إلى أبعد حد ممكن:

|                 |                 |                 |                 |                 |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| $\frac{78}{20}$ | $\frac{42}{52}$ | $\frac{80}{25}$ | $\frac{35}{75}$ | $\frac{66}{39}$ |
|-----------------|-----------------|-----------------|-----------------|-----------------|

(الحل)التمرين 4:

بسّط الكسور التالية إلى أبعد حد ممكن:

|                |                 |                 |                 |                  |
|----------------|-----------------|-----------------|-----------------|------------------|
| $\frac{52}{8}$ | $\frac{32}{68}$ | $\frac{116}{8}$ | $\frac{72}{81}$ | $\frac{102}{30}$ |
|----------------|-----------------|-----------------|-----------------|------------------|

(الحل)

Latreche MIFA

حلول تمارين درس الكسور والعمليات عليها  
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(2) الكسور:2.3. تساوي كسرين:حل التمرين 1:

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

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

(التمرين)

حل التمرين 2:

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

(التمرين)

حل التمرين 3:

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

(التمرين)حل التمرين 4:

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

(التمرين)حل التمرين 5:

- 1)  $\frac{5}{6} = \frac{10}{12} = \frac{15}{18} = \frac{30}{36}$ .
- 2)  $\frac{2}{5} = \frac{4}{10} = \frac{6}{15} = \frac{20}{50} = \frac{18}{45}$ .

(التمرين)2.4. تبسيط الكسور:حل التمرين 1:

|                                                               |                                                               |                                                              |
|---------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------|
| $\frac{95}{65} = \frac{95 \div 5}{65 \div 5} = \frac{19}{13}$ | $\frac{32}{58} = \frac{32 \div 2}{58 \div 2} = \frac{16}{29}$ | $\frac{21}{99} = \frac{21 \div 3}{99 \div 3} = \frac{7}{33}$ |
| $\frac{8}{42} = \frac{8 \div 2}{42 \div 2} = \frac{4}{21}$    | $\frac{24}{70} = \frac{24 \div 2}{70 \div 2} = \frac{12}{35}$ |                                                              |

(التمرين)

حل التمرين 2:

|                                                               |                                                               |                                                               |
|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| $\frac{21}{33} = \frac{21 \div 3}{33 \div 3} = \frac{7}{11}$  | $\frac{65}{39} = \frac{65 \div 13}{39 \div 13} = \frac{5}{3}$ | $\frac{68}{46} = \frac{68 \div 2}{46 \div 2} = \frac{34}{23}$ |
| $\frac{90}{64} = \frac{90 \div 2}{64 \div 2} = \frac{45}{32}$ | $\frac{85}{51} = \frac{85 \div 17}{51 \div 17} = \frac{5}{3}$ |                                                               |

(التمرين)حل التمرين 3:

|                                                               |                                                               |                                                              |
|---------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------|
| $\frac{78}{20} = \frac{78 \div 2}{20 \div 2} = \frac{39}{10}$ | $\frac{42}{52} = \frac{42 \div 2}{52 \div 2} = \frac{21}{26}$ | $\frac{80}{25} = \frac{80 \div 5}{25 \div 5} = \frac{16}{5}$ |
| $\frac{35}{75} = \frac{35 \div 5}{75 \div 5} = \frac{7}{15}$  | $\frac{66}{39} = \frac{66 \div 3}{39 \div 3} = \frac{22}{13}$ |                                                              |

(التمرين)حل التمرين 4:

|                                                             |                                                                |                                                              |
|-------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------|
| $\frac{52}{8} = \frac{52 \div 4}{8 \div 4} = \frac{13}{2}$  | $\frac{32}{68} = \frac{32 \div 4}{68 \div 4} = \frac{8}{17}$   | $\frac{116}{8} = \frac{116 \div 4}{8 \div 4} = \frac{29}{2}$ |
| $\frac{72}{81} = \frac{72 \div 9}{81 \div 9} = \frac{8}{9}$ | $\frac{102}{30} = \frac{102 \div 6}{30 \div 6} = \frac{17}{5}$ |                                                              |

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