





تمارين درس الكتابات الكسرية

الجزء الخامس

Latreche MIFA

**(6) اختزال الكسور:****التمرين 1:**

باستعمال قواعد قابلية القسمة، اختر الإجابة الصحيحة:

| يقبل الاختزال على |   |   | الكسر           | يقبل الاختزال على |   |   | الكسر            | يقبل الاختزال على |   |   | الكسر           |
|-------------------|---|---|-----------------|-------------------|---|---|------------------|-------------------|---|---|-----------------|
| 5                 | 3 | 2 | $\frac{24}{10}$ | 5                 | 3 | 2 | $\frac{9}{15}$   | 5                 | 3 | 2 | $\frac{18}{16}$ |
| 5                 | 3 | 2 | $\frac{5}{20}$  | 5                 | 3 | 2 | $\frac{6}{18}$   | 5                 | 3 | 2 | $\frac{28}{22}$ |
| 5                 | 3 | 2 | $\frac{30}{50}$ | 5                 | 3 | 2 | $\frac{90}{120}$ | 5                 | 3 | 2 | $\frac{36}{46}$ |
| 5                 | 3 | 2 | $\frac{72}{27}$ | 5                 | 3 | 2 | $\frac{21}{9}$   | 5                 | 3 | 2 | $\frac{39}{36}$ |

**(الحل)****التمرين 2:**

اختزل ما يلي حتى الحصول على كسر غير قابل للاختزال:

|                 |                 |                  |                 |                 |                 |                 |                 |
|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| $\frac{15}{12}$ | $\frac{20}{36}$ | $\frac{117}{63}$ | $\frac{21}{49}$ | $\frac{21}{56}$ | $\frac{75}{20}$ | $\frac{16}{88}$ | $\frac{16}{36}$ |
|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|

**(الحل)****التمرين 3:**

اختزل ما يلي حتى الحصول على كسر غير قابل للاختزال:

|                 |                 |                 |                  |                 |                 |                   |                 |
|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-------------------|-----------------|
| $\frac{40}{90}$ | $\frac{18}{72}$ | $\frac{16}{24}$ | $\frac{125}{75}$ | $\frac{10}{30}$ | $\frac{24}{20}$ | $\frac{500}{150}$ | $\frac{80}{60}$ |
|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-------------------|-----------------|

**(الحل)****التمرين 4:**

باستعمال القاسم المشترك الأكبر، اختزل ما يلي:

|                 |                 |                 |                  |                 |                 |                   |                 |                   |                   |                  |                   |
|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-------------------|-----------------|-------------------|-------------------|------------------|-------------------|
| $\frac{75}{35}$ | $\frac{81}{36}$ | $\frac{65}{26}$ | $\frac{121}{66}$ | $\frac{98}{21}$ | $\frac{66}{44}$ | $\frac{220}{260}$ | $\frac{40}{65}$ | $\frac{999}{441}$ | $\frac{450}{180}$ | $\frac{75}{250}$ | $\frac{234}{702}$ |
|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-------------------|-----------------|-------------------|-------------------|------------------|-------------------|

**(الحل)**

التمرين 5:

باستعمال القاسم المشترك الأكبر، اختزل ما يلي:

|                 |                 |                   |                   |                  |                  |                   |                   |                   |                   |                   |                   |
|-----------------|-----------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| $\frac{35}{91}$ | $\frac{88}{12}$ | $\frac{560}{720}$ | $\frac{160}{240}$ | $\frac{125}{50}$ | $\frac{144}{32}$ | $\frac{120}{168}$ | $\frac{162}{216}$ | $\frac{120}{192}$ | $\frac{192}{120}$ | $\frac{375}{875}$ | $\frac{840}{720}$ |
|-----------------|-----------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|

(الحل)

التمرين 6:

باستعمال القاسم المشترك الأكبر، اختزل ما يلي:

|                  |                  |                 |                  |                 |                 |                   |                   |                  |                   |
|------------------|------------------|-----------------|------------------|-----------------|-----------------|-------------------|-------------------|------------------|-------------------|
| $\frac{70}{150}$ | $\frac{200}{80}$ | $\frac{36}{20}$ | $\frac{88}{152}$ | $\frac{56}{80}$ | $\frac{26}{30}$ | $\frac{153}{162}$ | $\frac{135}{153}$ | $\frac{119}{21}$ | $\frac{119}{105}$ |
|------------------|------------------|-----------------|------------------|-----------------|-----------------|-------------------|-------------------|------------------|-------------------|

(الحل)

التمرين 7:

باستعمال القاسم المشترك الأكبر، اختزل ما يلي:

|                 |                   |                  |                   |                 |                 |                 |                 |                 |                |
|-----------------|-------------------|------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|
| $\frac{81}{72}$ | $\frac{135}{117}$ | $\frac{88}{120}$ | $\frac{228}{192}$ | $\frac{42}{84}$ | $\frac{95}{55}$ | $\frac{54}{60}$ | $\frac{45}{90}$ | $\frac{45}{51}$ | $\frac{22}{8}$ |
|-----------------|-------------------|------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|

(الحل)

التمرين 8:

باستعمال القاسم المشترك الأكبر، اختزل ما يلي:

|                 |                   |                  |                 |                   |                  |                |                  |                   |                   |
|-----------------|-------------------|------------------|-----------------|-------------------|------------------|----------------|------------------|-------------------|-------------------|
| $\frac{21}{84}$ | $\frac{228}{132}$ | $\frac{96}{136}$ | $\frac{70}{65}$ | $\frac{133}{119}$ | $\frac{60}{100}$ | $\frac{42}{9}$ | $\frac{48}{240}$ | $\frac{100}{200}$ | $\frac{169}{130}$ |
|-----------------|-------------------|------------------|-----------------|-------------------|------------------|----------------|------------------|-------------------|-------------------|

(الحل)

التمرين 9:

باستعمال القاسم المشترك الأكبر، اختزل ما يلي:

|                  |                  |                  |                   |                 |                   |                  |                  |                  |                   |
|------------------|------------------|------------------|-------------------|-----------------|-------------------|------------------|------------------|------------------|-------------------|
| $\frac{48}{192}$ | $\frac{114}{42}$ | $\frac{112}{49}$ | $\frac{169}{208}$ | $\frac{33}{24}$ | $\frac{208}{117}$ | $\frac{95}{380}$ | $\frac{238}{56}$ | $\frac{240}{72}$ | $\frac{221}{169}$ |
|------------------|------------------|------------------|-------------------|-----------------|-------------------|------------------|------------------|------------------|-------------------|

(الحل)

حلول تمارين درس الكتابات الكسرية:  
-الجزء الخامس-

(7) اختزال الكسور:حل التمرين 1:

| يقبل الاختزال على |   |   | الكسر           | يقبل الاختزال على |   |   | الكسر            | يقبل الاختزال على |   |   | الكسر           |
|-------------------|---|---|-----------------|-------------------|---|---|------------------|-------------------|---|---|-----------------|
| 5                 | 3 | 2 | $\frac{24}{10}$ | 5                 | 3 | 2 | $\frac{9}{15}$   | 5                 | 3 | 2 | $\frac{18}{16}$ |
| 5                 | 3 | 2 | $\frac{5}{20}$  | 5                 | 3 | 2 | $\frac{6}{18}$   | 5                 | 3 | 2 | $\frac{28}{22}$ |
| 5                 | 3 | 2 | $\frac{30}{50}$ | 5                 | 3 | 2 | $\frac{90}{120}$ | 5                 | 3 | 2 | $\frac{36}{46}$ |
| 5                 | 3 | 2 | $\frac{72}{27}$ | 5                 | 3 | 2 | $\frac{21}{9}$   | 5                 | 3 | 2 | $\frac{39}{36}$ |

(التمرين)حل التمرين 2:

|   |   |  |   |
|---|---|--|---|
| $\frac{15}{12} = \frac{5 \times 3}{4 \times 3} = \frac{5}{4}$ | $\frac{20}{36} = \frac{5 \times 4}{9 \times 4} = \frac{5}{9}$   | $\frac{117}{63} = \frac{13 \times 9}{7 \times 9} = \frac{13}{7}$ | $\frac{21}{49} = \frac{3 \times 7}{7 \times 7} = \frac{3}{7}$ |
| $\frac{21}{56} = \frac{3 \times 7}{8 \times 7} = \frac{3}{8}$ | $\frac{75}{20} = \frac{15 \times 5}{4 \times 5} = \frac{15}{4}$ | $\frac{16}{88} = \frac{2 \times 8}{11 \times 8} = \frac{2}{11}$  | $\frac{16}{36} = \frac{4 \times 4}{9 \times 4} = \frac{4}{9}$ |

(التمرين)حل التمرين 3:

|   |   |   |  |
|---|---|---|--|
| $\frac{40}{90} = \frac{4 \times 10}{9 \times 10} = \frac{4}{9}$ | $\frac{18}{72} = \frac{1 \times 18}{4 \times 18} = \frac{1}{4}$ | $\frac{16}{24} = \frac{2 \times 8}{3 \times 8} = \frac{2}{3}$       | $\frac{125}{75} = \frac{5 \times 25}{3 \times 25} = \frac{5}{3}$ |
| $\frac{10}{30} = \frac{1 \times 10}{3 \times 10} = \frac{1}{3}$ | $\frac{24}{20} = \frac{6 \times 4}{5 \times 4} = \frac{6}{5}$   | $\frac{500}{150} = \frac{10 \times 50}{3 \times 50} = \frac{10}{3}$ | $\frac{80}{60} = \frac{4 \times 20}{3 \times 20} = \frac{4}{3}$  |

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حل التمرين 4:

|   |  |   |
|---|--|---|
| $\frac{75}{35} = \frac{15 \times 5}{7 \times 5} = \frac{15}{7}$       | $\frac{81}{36} = \frac{9 \times 9}{4 \times 9} = \frac{9}{4}$      | $\frac{65}{26} = \frac{5 \times 13}{2 \times 13} = \frac{5}{2}$       |
| $\frac{121}{66} = \frac{11 \times 11}{6 \times 11} = \frac{11}{6}$    | $\frac{98}{21} = \frac{14 \times 7}{3 \times 7} = \frac{14}{3}$    | $\frac{66}{44} = \frac{3 \times 22}{2 \times 22} = \frac{3}{2}$       |
| $\frac{220}{260} = \frac{11 \times 20}{13 \times 20} = \frac{11}{13}$ | $\frac{40}{65} = \frac{8 \times 5}{13 \times 5} = \frac{8}{13}$    | $\frac{999}{441} = \frac{111 \times 9}{49 \times 9} = \frac{111}{49}$ |
| $\frac{450}{180} = \frac{5 \times 90}{2 \times 90} = \frac{5}{2}$     | $\frac{75}{250} = \frac{3 \times 25}{10 \times 25} = \frac{3}{10}$ | $\frac{234}{702} = \frac{1 \times 234}{3 \times 234} = \frac{1}{3}$   |

(التمرين)حل التمرين 5:

|   |   |   |
|---|---|---|
| $\frac{35}{91} = \frac{5 \times 7}{13 \times 7} = \frac{5}{13}$   | $\frac{88}{12} = \frac{22 \times 4}{3 \times 4} = \frac{22}{3}$     | $\frac{560}{720} = \frac{7 \times 80}{9 \times 80} = \frac{7}{9}$   |
| $\frac{160}{240} = \frac{2 \times 80}{3 \times 80} = \frac{2}{3}$ | $\frac{125}{50} = \frac{5 \times 25}{2 \times 25} = \frac{5}{2}$    | $\frac{144}{32} = \frac{9 \times 16}{2 \times 16} = \frac{9}{2}$    |
| $\frac{120}{168} = \frac{5 \times 24}{7 \times 24} = \frac{5}{7}$ | $\frac{162}{216} = \frac{3 \times 54}{4 \times 54} = \frac{3}{4}$   | $\frac{120}{192} = \frac{5 \times 24}{8 \times 24} = \frac{5}{8}$   |
| $\frac{192}{120} = \frac{8 \times 24}{5 \times 24} = \frac{8}{5}$ | $\frac{375}{875} = \frac{3 \times 125}{7 \times 125} = \frac{3}{7}$ | $\frac{840}{720} = \frac{7 \times 120}{6 \times 120} = \frac{7}{6}$ |

(التمرين)حل التمرين 6:

|  |   |   |   |
|--|---|---|---|
| $\frac{70}{150} = \frac{7 \times 10}{15 \times 10} = \frac{7}{15}$ | $\frac{200}{80} = \frac{5 \times 40}{2 \times 40} = \frac{5}{2}$    | $\frac{36}{20} = \frac{9 \times 4}{5 \times 4} = \frac{9}{5}$       | $\frac{88}{152} = \frac{11 \times 8}{19 \times 8} = \frac{11}{19}$  |
| $\frac{56}{80} = \frac{7 \times 8}{10 \times 8} = \frac{7}{10}$    | $\frac{26}{30} = \frac{13 \times 2}{15 \times 2} = \frac{13}{15}$   | $\frac{153}{162} = \frac{17 \times 9}{18 \times 9} = \frac{17}{18}$ | $\frac{135}{153} = \frac{15 \times 9}{17 \times 9} = \frac{15}{17}$ |
| $\frac{119}{21} = \frac{17 \times 7}{3 \times 7} = \frac{17}{3}$   | $\frac{119}{105} = \frac{17 \times 7}{15 \times 7} = \frac{17}{15}$ |   |   |

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حل التمرين 7:

|   |   |  |   |
|---|---|--|---|
| $\frac{81}{72} = \frac{9 \times 9}{8 \times 9} = \frac{9}{8}$     | $\frac{135}{117} = \frac{15 \times 9}{13 \times 9} = \frac{15}{13}$ | $\frac{88}{120} = \frac{11 \times 8}{15 \times 8} = \frac{11}{15}$ | $\frac{228}{192} = \frac{19 \times 12}{16 \times 12} = \frac{19}{16}$ |
| $\frac{42}{84} = \frac{1 \times 42}{2 \times 42} = \frac{1}{2}$   | $\frac{95}{55} = \frac{19 \times 5}{11 \times 5} = \frac{19}{11}$   | $\frac{54}{60} = \frac{9 \times 6}{10 \times 6} = \frac{9}{10}$    | $\frac{45}{90} = \frac{1 \times 45}{2 \times 45} = \frac{1}{2}$       |
| $\frac{45}{51} = \frac{15 \times 3}{17 \times 3} = \frac{15}{17}$ |   | $\frac{22}{8} = \frac{11 \times 2}{4 \times 2} = \frac{11}{4}$     |   |

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حل التمرين 8:

|   |   |   |   |
|---|---|---|---|
| $\frac{21}{84} = \frac{1 \times 21}{4 \times 21} = \frac{1}{4}$     | $\frac{228}{132} = \frac{19 \times 12}{11 \times 12} = \frac{19}{11}$ | $\frac{96}{136} = \frac{12 \times 8}{17 \times 8} = \frac{12}{17}$    | $\frac{70}{65} = \frac{14 \times 5}{13 \times 5} = \frac{14}{13}$ |
| $\frac{133}{119} = \frac{19 \times 7}{17 \times 7} = \frac{19}{17}$ | $\frac{60}{100} = \frac{3 \times 20}{5 \times 20} = \frac{3}{5}$      | $\frac{42}{9} = \frac{14 \times 3}{3 \times 3} = \frac{14}{3}$        | $\frac{48}{240} = \frac{1 \times 48}{5 \times 48} = \frac{1}{5}$  |
| $\frac{100}{200} = \frac{1 \times 100}{2 \times 100} = \frac{1}{2}$ |   | $\frac{169}{130} = \frac{13 \times 13}{10 \times 13} = \frac{13}{10}$ |   |

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حل التمرين 9:

|  |   |   |   |
|--|---|---|---|
| $\frac{48}{192} = \frac{1 \times 48}{4 \times 48} = \frac{1}{4}$   | $\frac{114}{42} = \frac{19 \times 6}{7 \times 6} = \frac{19}{7}$    | $\frac{112}{49} = \frac{16 \times 7}{7 \times 7} = \frac{16}{7}$      | $\frac{169}{208} = \frac{13 \times 13}{16 \times 13} = \frac{13}{16}$ |
| $\frac{33}{24} = \frac{11 \times 3}{8 \times 3} = \frac{11}{8}$    | $\frac{208}{117} = \frac{16 \times 13}{9 \times 13} = \frac{16}{9}$ | $\frac{95}{380} = \frac{1 \times 95}{4 \times 95} = \frac{1}{4}$      | $\frac{238}{56} = \frac{17 \times 14}{4 \times 14} = \frac{17}{4}$    |
| $\frac{240}{72} = \frac{10 \times 24}{3 \times 24} = \frac{10}{3}$ |   | $\frac{221}{169} = \frac{17 \times 13}{13 \times 13} = \frac{17}{13}$ |   |

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