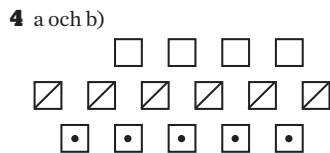
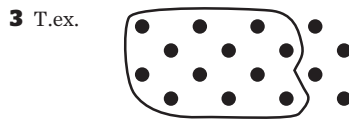
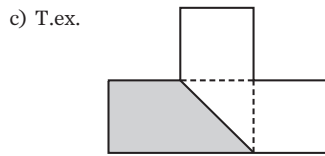
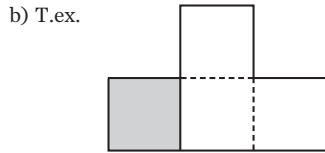
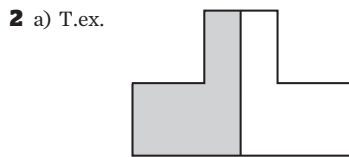
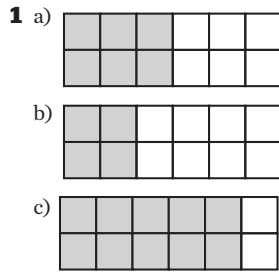


Facit till övningsblad

Kapitel 4 Bråk och procent

4.1 Bråkbegreppet



c) $\frac{4}{15}$

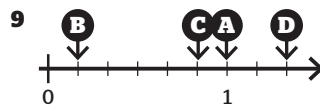
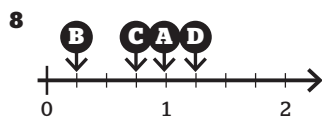
5 a) $\frac{3}{7}$ b) $\frac{8}{16} = \frac{1}{2}$

c) $\frac{3}{4}$ d) $\frac{1}{4}$

6 a) $\frac{1}{12}$ b) $\frac{5}{12}$

7 a) $A = \frac{1}{5}$ $B = \frac{3}{5}$ $C = \frac{6}{5} = 1\frac{1}{5}$

b) $A = \frac{2}{3}$ $B = \frac{4}{3} = 1\frac{1}{3}$ $C = \frac{8}{3} = 2\frac{2}{3}$



10 a) $1\frac{3}{4}$ b) $2\frac{1}{4}$ c) $3\frac{3}{4}$

11 a) $2\frac{2}{3}$ b) $3\frac{1}{3}$ c) $4\frac{2}{3}$

12 a) $\frac{11}{5}$ b) $\frac{17}{5}$ c) $\frac{9}{5}$

13 a) $\frac{7}{2}$ b) $\frac{21}{8}$ c) $\frac{33}{8}$

4.2 Storleksordna bråk

1 $A = \frac{4}{7}$ $B = \frac{9}{14}$ $C = \frac{7}{11}$

$D = \frac{1}{4}$ $E = \frac{3}{8}$

2 $\frac{6}{5}, \frac{8}{5}, \frac{15}{13}$

3 a) T.ex. $\frac{2}{5}$ b) T.ex. $\frac{49}{100}$

c) $\frac{1}{3}$ d) T.ex. $\frac{12}{25}$

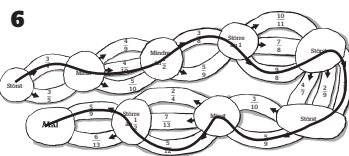
e) T.ex. $\frac{4}{9}$

4 $\frac{5}{6}, \frac{9}{10}, \frac{7}{12}$

5 a) T.ex. $\frac{5}{9}$ b) T.ex. $\frac{8}{15}$

c) T.ex. $\frac{10}{19}$ d) T.ex. $\frac{3}{5}$

e) T.ex. $\frac{6}{11}$



4.3 Förlänga och förkorta bråk

1 $a = \frac{1}{6}, b = \frac{3}{12} = \frac{1}{4}, c = \frac{6}{12} = \frac{1}{2}, d = \frac{3}{4}$

$e = \frac{1}{4}, f = \frac{2}{6} = \frac{1}{3}, g = \frac{2}{12} = \frac{1}{6}$

$h = \frac{9}{12} = \frac{3}{4}, i = \frac{1}{3}, j = \frac{2}{8} = \frac{1}{4}$

$k = \frac{4}{24} = \frac{1}{6}, l = \frac{12}{24} = \frac{1}{2}$

2 a) $\frac{8}{12}$ b) $\frac{6}{14}$ c) $\frac{20}{45}$

3 a) $\frac{10}{35}$ b) $\frac{15}{20}$ c) $\frac{40}{45}$

4 a) 4 b) 4 c) 3

5 a) $\frac{4}{24}$ b) $\frac{16}{36}$ c) $\frac{12}{20}$

6 a) $\frac{1}{3}$ b) $\frac{1}{3}$ c) $\frac{4}{5}$

7 a) $\frac{7}{8}$ b) $\frac{4}{5}$ c) $\frac{3}{9}$

8 a) $\frac{2}{5}$ b) $\frac{5}{8}$ c) $\frac{3}{4}$

9 a) $x = 16$ b) $x = 6$ c) $x = 35$
d) $x = 3$ e) $x = 9$ f) $x = 5$

10 a) $\frac{6}{10}$ b) $\frac{7}{10}$ c) $\frac{4}{10}$

11 a) $\frac{12}{100}$ b) $\frac{16}{100}$ c) $\frac{12}{100}$

12 a) $\frac{2}{3}$ b) $\frac{1}{4}$

4.4 Addition och subtraktion av bråk

1 a) $\frac{5}{7}$ b) $\frac{7}{12}$ c) $\frac{5}{14}$ d) $\frac{3}{8}$

2 a) $\frac{3}{8}$ b) $\frac{3}{8}$ c) $\frac{3}{10}$ d) $\frac{7}{10}$

3 a) $\frac{5}{9}$ b) $\frac{5}{11}$ c) $\frac{11}{13}$

4 a) $\frac{1}{8}$ b) $\frac{9}{10}$ c) $\frac{4}{9}$ d) $\frac{5}{12}$

5 a) $\frac{8}{12} + \frac{9}{12} = \frac{17}{12}$ b) $\frac{5}{20} + \frac{8}{20} = \frac{13}{20}$

c) $\frac{21}{24} - \frac{8}{24} = \frac{13}{24}$ d) $\frac{18}{30} + \frac{5}{30} = \frac{23}{30}$

6 a) $\frac{49}{70} - \frac{20}{70} = \frac{29}{70}$ b) $\frac{25}{45} - \frac{9}{45} = \frac{16}{45}$

c) $\frac{32}{36} - \frac{9}{36} = \frac{23}{36}$

7 a) $\frac{15}{40} + \frac{16}{40} = \frac{31}{40}$ b) $\frac{5}{15} + \frac{3}{15} = \frac{8}{15}$

c) $\frac{20}{36} + \frac{9}{36} = \frac{29}{36}$

8 a) $\frac{2}{10} + \frac{3}{10} = \frac{5}{10} = \frac{1}{2}$

b) $\frac{13}{20} + \frac{2}{20} = \frac{15}{20} = \frac{3}{4}$

c) $\frac{1}{12} + \frac{2}{12} = \frac{3}{12} = \frac{1}{4}$

9 a) $\frac{3}{9} = \frac{1}{3}$ b) $\frac{2}{3}$

10 a) $\frac{7}{8}$ b) $\frac{1}{8}$

4.5 Multiplikation av bråk

1 a) 20 b) 18 c) 8

2 a) 12 b) 25 c) 20

3 a) 24 b) 15 c) 25

4 a) 8 b) 14 c) 10

5 a) 50 b) 8 c) 6

6 a) 4 st b) 14 st

7 21 st

8 a) $\frac{1}{15}$ b) $\frac{6}{50}$ c) $\frac{4}{21}$

9 a) $\frac{8}{45}$ b) $\frac{15}{24}$ c) $\frac{3}{32}$

10 a) $\frac{15}{28}$ b) $\frac{16}{27}$ c) $\frac{6}{25}$

11 a) $\frac{14}{40} = \frac{7}{20}$ b) $\frac{6}{21}$ c) $\frac{4}{7}$

12 a) $\frac{12}{56} = \frac{3}{14}$ alternativt $\frac{3}{2} \cdot \frac{1}{7} = \frac{3}{14}$

b) $\frac{15}{30} = \frac{1}{2}$ alternativt $\frac{1}{1} \cdot \frac{1}{2} = \frac{1}{2}$

c) $\frac{12}{72} = \frac{1}{6}$ alternativt $\frac{1}{3} \cdot \frac{1}{2} = \frac{1}{6}$

13 a) $\frac{1}{16}$ b) $\frac{3}{15} = \frac{1}{5}$ c) $\frac{1}{28}$

14 $\frac{2}{12} = \frac{1}{6}$

15 $\frac{6}{15}$

4.7 Beräkna delen

1 a) 6% b) 30% c) 73%

2 a) 70% b) 75% c) 60%

3 a) 65% b) 5% c) 70%

4

Bråkform	Decimalform	Procentform
$\frac{3}{100}$	0,03	3%
$\frac{15}{100}$	0,15	15%
$\frac{1}{4}$	0,25	25%
$\frac{1}{10}$	0,1	10%
$\frac{8}{100}$	0,08	8%
$\frac{1}{5}$	0,2	20%

5 $\frac{5}{11} \approx 0,45 = 45\%$

6 a) $\frac{3}{8} = 0,375 = 37,5\%$

b) $\frac{5}{8} = 0,625 = 62,5\%$

7 $\frac{23}{31} \approx 0,74 = 74\%$

8 $\frac{14}{57} \approx 0,25 = 25\%$

9 a) Sverige b) Spanien (66%)

c) Spanien

10 $\frac{423}{(309 + 423)} \approx 0,58 = 58\%$

11 $\frac{4\,329}{(4\,329 + 5\,721 + 968)} \approx 0,39 = 39\%$

12 a) 45 lag b) 2,9% c) 6,8%

13 19%

14 a) 15 kr b) 20%

4.8 Beräkna delen med huvudräkning

1 a) 350 kr b) 220 kr c) 1250 kr

2 a) 80 kr b) 30 kr c) 3 kr

3 a) 60 kr b) 30 kr c) 90 kr

4 a) 50 kr b) 100 kr c) 150 kr

5 a) 35 kr b) 70 kr c) 140 kr

6 a) 90 kr b) 60 kr c) 70 kr

7 a) 720 kr b) 480 kr c) 560 kr

8 a) 400 kr b) 350 kr c) 150 kr

9 a) 252 kr b) 224 kr c) 196 kr

4.9 Beräkna delen

1 a) 8 m b) 32 m

2 a) 24 kr b) 216 kr

3 a) 3,65 kr b) 25,55 kr

4 a) 60 kr b) 810 kr

5 a) 2 070 kr b) 6 930 kr

6 a) 74 kr b) 421 kr

7 a) 24 m b) 324 m

8 148 000 kr

9 392 miljarder kronor

10 11 278 bilar

4.10A Beräkna det hela, 100%

1 a) 2 000 kr b) 5 000 g

c) 400 min

2 a) 700 m b) 400 kr

c) 900 kr

3 a) 700 kr b) 900 kr

c) 3 000 kr

4 200 st

5 478 elever

6 122 pizzor

7 150 kr

8 a) 1 800 kr b) 1 440 kr

9 a) 9 333 kr b) 10 733 kr

4.10B Blandade procentuppgifter

1 16,6 km

2 38%

3 326 g

4 293 kr

5 31%

6 78%

7 12 200 blixurladdningar

8 602 st

9 550 kr

10 51,9%

11 52%

12 1 743 kr

13 16 656 ton