

## Homework

### Chapter 2: Fraction, decimals and percentages

#### 2A Equivalent fractions

1.

$\frac{2}{3}$	$\frac{3}{4}$	$\frac{2}{3}$	$\frac{2}{3}$
$\frac{4}{5}$	$\frac{3}{4}$	$\frac{2}{3}$	$\frac{2}{3}$
$\frac{2}{3}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{3}{4}$
$\frac{4}{5}$	$\frac{2}{3}$	$\frac{2}{3}$	$\frac{2}{3}$
$\frac{2}{3}$	$\frac{2}{3}$	$\frac{4}{5}$	$\frac{3}{4}$
$\frac{3}{4}$	$\frac{2}{3}$	$\frac{3}{4}$	$\frac{2}{3}$
$\frac{2}{3}$	$\frac{7}{10}$	$\frac{3}{4}$	$\frac{7}{9}$

2.

Equivalent	Equivalent	NOT Equivalent	NOT Equivalent
Equivalent	Equivalent	NOT Equivalent	Equivalent
NOT Equivalent	NOT Equivalent	Equivalent	Equivalent

3.

$\frac{2a}{3}$	$\frac{x}{3}$	$\frac{2y}{3z}$	$\frac{1}{2}$
$\frac{1}{3c}$	$\frac{1}{2q}$	$\frac{3}{4y}$	$\frac{2y}{3z}$
$\frac{a}{2b}$	$\frac{1}{2n}$	$\frac{b}{2c}$	$\frac{x}{2y}$
$\frac{p}{2r}$	$\frac{y}{3z}$	$\frac{ab}{2cd}$	$\frac{2}{3q}$
$\frac{n}{3p}$	$\frac{x}{2y}$	$\frac{1}{2z}$	$\frac{a}{3b}$

4.

$$\frac{18}{72}, \frac{16}{72}, \frac{45}{72}, \frac{42}{72}, \frac{36}{72}$$

5.

$$\frac{14}{84}, \frac{35}{84}, \frac{36}{84}, \frac{42}{84}, \frac{8}{84}$$

## 2B Operations with fractions

1.

$\frac{5}{4}$	$\frac{7}{6}$	$\frac{5}{8}$	$\frac{1}{2}$
$\frac{17}{12}$	$\frac{34}{35}$	$\frac{1}{6}$	$\frac{17}{16}$
$\frac{7}{15}$	$\frac{71}{45}$	$\frac{5}{8}$	$\frac{29}{35}$
$\frac{11}{21}$	$\frac{10}{9}$	$\frac{29}{36}$	$\frac{2}{5}$
$\frac{31}{18}$	$-\frac{1}{24}$	$\frac{13}{12}$	$\frac{3}{14}$
$\frac{19}{12}$	$\frac{7}{4}$	$\frac{7}{2}$	$\frac{57}{14}$
$\frac{47}{8}$	$\frac{55}{9}$	8	$\frac{33}{4}$
$\frac{41}{4}$	$\frac{23}{2}$	$\frac{35}{3}$	14

2.

$\frac{8}{15}$	$\frac{7}{6}$	$\frac{15}{32}$	$\frac{3}{2}$
$\frac{11}{42}$	$\frac{32}{15}$	$\frac{10}{21}$	$\frac{2}{3}$
$\frac{1}{2}$	$\frac{21}{20}$	$\frac{7}{20}$	$\frac{9}{5}$
$\frac{10}{21}$	$\frac{5}{12}$	$\frac{11}{14}$	$\frac{35}{16}$
$\frac{5}{12}$	$\frac{10}{9}$	$\frac{35}{48}$	$\frac{20}{27}$
$\frac{8}{15}$	$\frac{55}{42}$	$\frac{5}{12}$	$\frac{20}{11}$
$\frac{9}{8}$	$\frac{8}{3}$	$\frac{13}{10}$	$\frac{186}{35}$
$\frac{81}{40}$	$\frac{171}{21}$	$\frac{148}{45}$	$\frac{134}{8}$
$\frac{111}{20}$	$\frac{975}{66}$	$\frac{11}{4}$	$\frac{363}{4}$

## 2C Operations with negative fractions

1.

$7/20$	$29/24$	$-11/35$	$23/18$
$-13/8$	$11/15$	$-52/63$	$-10/33$
$11/10$	$-67/56$	$1/60$	$-3/20$
$31/45$	$-4/3$	$25/56$	$1/15$
$7/9$	$-41/77$	$-5/72$	$23/15$
$-5/8$	$12/35$	$-16/27$	$-3/5$
$-35/18$	$-25/21$	$-20/21$	$35/32$

2.

$4/3$	$1/3$
$-2$	$2/5$
$-1$	$-3/8$
$-2/5$	$-2$
$1/3$	$-3/2$
$-3$	$-4/3$

## 2D Understanding decimals

1.

0.5	0.75	0.8	0.785	0.6	0.9
0.25	0.4	0.3	0.125	0.625	0.7
0.08	0.16	0.28	0.48	0.45	0.6
0.9	0.15	0.68	0.95	0.55	0.44

2.

- a. 0.23, 0.34, 0.45, 0.56, 0.78
- b. 0.65, 0.72, 0.81, 0.84, 0.92
- c. 0.121, 0.123, 0.125, 0.132, 0.134
- d. 0.54, 0.65, 0.76, 0.87, 0.98
- e. 0.301, 0.320, 0.392, 0.403, 0.412

3.

$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{1}{10}$	$\frac{3}{10}$
$\frac{7}{20}$	$\frac{18}{25}$	$\frac{4}{25}$	$\frac{17}{20}$	$\frac{91}{100}$	$\frac{12}{25}$
$\frac{53}{100}$	$\frac{16}{25}$	$\frac{3}{4}$	$\frac{29}{50}$	$\frac{23}{25}$	$\frac{9}{25}$
$\frac{3}{8}$	$\frac{5}{8}$	$\frac{1}{8}$	$\frac{7}{8}$	$\frac{57}{125}$	$\frac{789}{1000}$
$\frac{117}{500}$	$\frac{114}{125}$	$\frac{87}{250}$	$\frac{357}{500}$	$\frac{319}{500}$	$\frac{111}{200}$

## 2E Operations with decimals

1.

7.7	8.9	3.66
5	12	10.38
4.25	9.85	6.25
2.556	8	4.56
13.7	3.31	14.01

2.

24.08	-10.26	-52.7	-24.42
24.19	-69.12	-8.88	-9.9
-19.43	16.38	12.6	-31.39

3.

8	-19	-14	-23
5	-15	-12	-4.9
8	4	-8	16
12	-5	-9	-39
-6	-4	-4	5.5

## 2F Terminating, recurring and rounding decimals

1.

3.14	6.79	0.46	12.35
5.68	9.12	14.88	2.99
0.08	8.41	12.05	85.24

2.

4.6	7.8	15.5	23.7
2.3	19.1	11.8	6.9
8.8	3.5	12.6	20.1

3.

8	7	10	4
15	19	7	7
35	81	70	74

4.

$3.\bar{7}$	$4.\bar{1}$	$7.\bar{23}$	$0.\bar{98}$
$2.\bar{6}$	$5.\bar{45}$	$9.\bar{09}$	$0.\bar{83}$
$6.\bar{13}$	$8.\bar{7}$	$11.\bar{293}$	$3.1\bar{455}$

## 2G Converting fractions, decimals and percentage

1.

$\frac{21}{50}$	$\frac{33}{100}$	$\frac{17}{20}$	$\frac{91}{100}$	$\frac{7}{5}$
$\frac{13}{20}$	$7\frac{4}{5}$ (1 $\frac{2}{5}$ )	$3\frac{4}{5}$ (19/5)	$2\frac{1}{4}$ (9/4)	$1\frac{1}{2}$ (3/2)

2.

45%	87%	45.2%	77.2%	152%
150%	1521%	800.1%	712%	1030%

3.

87.5%	83.333..%	90%	55%	56%
32%	76.666..%	33%	75%	52.5%
40%	35%	44%	37.5%	34%
40%	67.5%	75%	60%	40%

4.

0.85	0.37	2.5	0.095	0.0075
1.5	0.1234	0.9999	0.0003	2.75

## 2H Finding a percentage and expressing as a percentage

1.

- a. 60%
- b. 80%
- c. 80%
- d. 60%
- e. 50%
- f. 50%
- g. 50%
- h. 50%
- i. 50%
- j. 75%

2.

20	100	120	50
48	10	90	70
6	270	300	17
29.7	99	315	33



## 2I Decreasing and increasing by a percentage

1.

55	31.5	115	48
27	220	67.20	625
97.50	94.40	225	560

2.

95	24	68	30
164	66	84	117
450	240	162.5	930

3.

7500	40000
14400	22500

## 2J Calculating percentage change

1.

- a. 50%
- b. 30%
- c. 25%
- d. 50%
- e. 50%
- f. 30%

2.

- a. 25%
- b. 20%
- c. 25%
- d. 25%

3.

- a. 50% profit
- b. 25% profit
- c. 20% profit
- d. 20% profit
- e. 20% profit
- f. 20% loss
- g. 25% loss
- h. 20% loss
- i. 25% loss
- j. 30% loss
- k. 50% profit
- l. 50% profit
- m. 25% profit
- n. 20% profit
- o. 20% profit

## 2K Percentages and the unitary method

1.

- a. 1% → 15; 100% → 1500
- b. 1% → 5; 100% → 500
- c. 1% → 20; 100% → 2000
- d. 1% → 20; 100% → 2000
- e. 1% → 30; 100% → 3000
- f. 1% → 50; 100% → 5000
- g. 1% → 7; 100% → 700
- h. 1% → 20; 100% → 2000
- i. 1% → 30; 100% → 3000
- j. 1% → 20; 100% → 2000
- k. 1% → 10; 100% → 1000
- l. 1% → 4; 100% → 400
- m. 1% → 8; 100% → 800
- n. 1% → 30; 100% → 3000
- o. 1% → 40; 100% → 4000
- p. 1% → 10; 100% → 1000
- q. 1% → 20; 100% → 2000
- r. 1% → 20; 100% → 2000
- s. 1% → 10; 100% → 1000
- t. 1% → 20; 100% → 2000
- u. 1% → 10; 100% → 1000
- v. 1% → 40; 100% → 4000
- w. 1% → 20; 100% → 2000
- x. 1% → 40; 100% → 4000
- y. 1% → 10; 100% → 1000
- z. 1% → 20; 100% → 2000