

Revision & Practice Worksheet 1

A Number skills: Converting between decimals and fractions

Skill 1.1

Make these into fractions:

- | | | | |
|---------|----------|----------|----------|
| 1 4.02 | 2 15.001 | 3 16.075 | 4 7.023 |
| 5 6.125 | 6 0.025 | 7 15.05 | 8 13.15 |
| 9 6.09 | 10 11.05 | 11 5.08 | 12 13.06 |

Make these into decimals:

- | | | | | |
|--------------------|--------------------|--------------------|-------------------|---------------------|
| 13 $8\frac{1}{40}$ | 14 $5\frac{1}{25}$ | 15 $6\frac{2}{3}$ | 16 $9\frac{7}{8}$ | 17 $8\frac{1}{4}$ |
| 18 $11\frac{2}{7}$ | 19 $3\frac{1}{9}$ | 20 $9\frac{2}{11}$ | 21 $\frac{2}{13}$ | 22 $10\frac{6}{11}$ |
| 23 $5\frac{1}{14}$ | 24 $3\frac{2}{7}$ | | | |

B Number skills: Converting between fractions and percentages

Skill 1.2

Make these into percentages to 2 decimal places where necessary:

- | | | | | |
|-------------------|--------------------|-------------------|------------------|-------------------|
| 1 $5\frac{1}{2}$ | 2 $\frac{3}{4}$ | 3 $\frac{5}{8}$ | 4 $\frac{4}{7}$ | 5 $\frac{9}{11}$ |
| 6 $\frac{2}{11}$ | 7 $8\frac{1}{11}$ | 8 $5\frac{3}{11}$ | 9 $6\frac{4}{9}$ | 10 $5\frac{1}{9}$ |
| 11 $6\frac{4}{9}$ | 12 $23\frac{8}{9}$ | | | |

Make these into fractions:

- | | | | |
|---------------------|---------------------|----------------------|----------------------|
| 13 230% | 14 180% | 15 450% | 16 680% |
| 17 85% | 18 670% | 19 $33\frac{1}{3}\%$ | 20 $66\frac{2}{3}\%$ |
| 21 $4\frac{1}{5}\%$ | 22 $7\frac{1}{8}\%$ | 23 $2\frac{3}{8}\%$ | 24 $19\frac{5}{8}\%$ |

C Number applications: Using ratios within a population

Skill 2.2

White and yellow cars are observed on the local freeway in the ratio 6:7. If 434 yellow cars are observed then:

- How many white cars were observed?
- How many yellow cars and white cars were observed?

D Number applications: Increasing or decreasing quantities in a ratio

Skill 2.4

- If Olivia can eat 7 pies in 4 days, then at this rate how many pies will she eat in:
 - 6 days
 - 12 days
 - 14 days?
- If a machine wheel turns 20 times in 4 mins, how long will it take for the wheel to turn:
 - 15 times
 - 30 times
 - 160 times?

E Algebra: Simplifying algebraic expressions

Skill 3.1

Simplify the following:

- | | | |
|-----------------------------|-------------------------------|-----------------------------|
| 1 $6a - 3b - 2a - 18a$ | 2 $19bc + 2cb + 2ca$ | 3 $21ac - 14ca + 13ca$ |
| 4 $3a \times 2b \times -3c$ | 5 $-2 \times 3a \times 4b$ | 6 $-3a \times 6b \times 4c$ |
| 7 $5abc + 3c$ | 8 $19ab + 38b$ | 9 $-42abc + 16ac$ |
| 10 $-4ac + 5a - 6ca$ | 11 $-3a \times 4b \times -3c$ | 12 $\frac{15abe}{45be}$ |

Worksheet 1

- A**
- | | | | | | | | |
|----|------------------|----|--------------------|----|------------------|----|--------------------|
| 1 | $4\frac{1}{50}$ | 2 | $15\frac{1}{1000}$ | 3 | $16\frac{3}{40}$ | 4 | $7\frac{23}{1000}$ |
| 5 | $6\frac{1}{8}$ | 6 | $\frac{1}{40}$ | 7 | $15\frac{1}{20}$ | 8 | $13\frac{3}{20}$ |
| 9 | $6\frac{9}{100}$ | 10 | $11\frac{1}{20}$ | 11 | $5\frac{2}{23}$ | 12 | $13\frac{3}{50}$ |
| 13 | 8.025 | 14 | 5.04 | 15 | 6.6 | | |
| 16 | 9.875 | 17 | 8.25 | 18 | 11.285714 | | |
| 19 | 3.i | 20 | 9.i8 | 21 | 0.153846 | | |
| 22 | 10.54 | 23 | 5.0714285 | 24 | 3.285714 | | |
- B**
- | | | | | | |
|----|------------------|----|------------------|----|-------------------|
| 1 | 550% | 2 | 75% | 3 | 62.5% |
| 4 | 57.14% | 5 | 81.8i% | 6 | 18.i8% |
| 7 | 809.09% | 8 | 527.27% | 9 | 644.44% |
| 10 | 511.11% | 11 | 644.44% | 12 | 2388.89% |
| 13 | $\frac{23}{10}$ | 14 | $\frac{9}{5}$ | 15 | $\frac{9}{2}$ |
| 16 | $\frac{34}{5}$ | 17 | $\frac{17}{20}$ | 18 | $\frac{67}{10}$ |
| 19 | $\frac{1}{3}$ | 20 | $\frac{2}{3}$ | 21 | $\frac{21}{500}$ |
| 22 | $\frac{57}{800}$ | 23 | $\frac{19}{800}$ | 24 | $\frac{157}{800}$ |
- C**
- | | | | |
|---|-----|---|-----|
| 1 | 372 | 2 | 806 |
|---|-----|---|-----|
- D**
- | | | | |
|---|---------------------|--------|---------------------|
| 1 | (a) $10\frac{1}{2}$ | (b) 21 | (c) $24\frac{1}{2}$ |
| 2 | (a) 3 | (b) 6 | (c) 32 |
- E**
- | | | | | | |
|----|--------------|----|---------------|----|------------------|
| 1 | $-14a - 3b$ | 2 | $21bc + 2ac$ | 3 | $20ac$ |
| 4 | $-18abc$ | 5 | $-24ab$ | 6 | $-72abc$ |
| 7 | $5ab$ | 8 | $\frac{a}{2}$ | 9 | $-\frac{21b}{8}$ |
| 10 | $-10ac + 5a$ | 11 | $36abc$ | 12 | $\frac{a}{3}$ |