

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 $15abc + 3c$ | 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 $5\frac{2}{25}$ 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.i53846
 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 $\frac{a}{3}$