Core skills worksheet

Non-calculator arithmetic

National 5 Maths

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This drill sheet was created after analysing the types of non-calculator arithmetic required within Paper 1 of National 5 Maths specimen papers and the 2014 to 2023 past papers. Most of the questions below were needed within the answers to questions on these papers. Care has been taken to add only very similar questions and not to go beyond the level of difficulty required.

1. Adding and subtracting positive whole numbers.

(a) $18 + 8$	**(b)** $16 + 28$	**(c)** $25 + 28$	**(d)** $36 + 16$
(e) $90 + 14$	**(f)** $1 + 16 + 64$	**(g)** $9 + 4 + 36$	**(h)** $18 + 81 + 65$
(i) $9 + 1 + 4 + 4$	**(j)** $180 - 72$	**(k)** $225 - 144$	**(l)** $128 - 64$
(m) $90 - 77$	**(n)** $250 - 212$	**(o)** $2500 - 900$	**(p)** $9 + 49 - 25$
(q) $25 + 36 - 12$	**(r)** $144 + 25 - 81$	**(s)** $2000 - 80 + 1$	**(t)** $350 - 102 + 19$
(u) $100 - 29 - 18$	**(v)** $27 + 36 - 44$	**(w)** $650 - 14 + 44$	**(x)** $360 - 45 - 120$

2. Multiplying and dividing positive whole numbers. Some of these answers are not whole numbers.

(a) 17×2	**(b)** 16×8	**(c)** 98×3	**(d)** 185×2
(e) 215×4	**(f)** 15×40	**(g)** 1500×8	**(h)** 70×1400
(i) $32 \div 2$	**(j)** $13 \div 2$	**(k)** $79 \div 2$	**(l)** $100 \div 4$
(m) $106 \div 10$	**(n)** $360 \div 5$	**(o)** $17 \div 5$	**(p)** $240 \div 20$
(q) $138 \div 12$	**(r)** $38 \div 19$	**(s)** $46 \div 23$	**(t)** $60 \div 15$
(u) $260 \div 13$	**(v)** $6000 \div 20$	**(w)** $30\,000 \div 20$	**(x)** $480\,000 \div 6$

3. Adding and subtracting with negative numbers.

(a) $-8 + 3$	**(b)** $-20 + 7$	**(c)** $-2 + 6$	**(d)** $-7 + 10$
(e) $-6 + 25$	**(f)** $-75 + 200$	**(g)** $-7500 + 20\,000$	**(h)** $-8 + (-5)$
(i) $5 - 9$	**(j)** $2 - 15$	**(k)** $16 - 40$	**(l)** $44 - 49$
(m) $-2 - 7$	**(n)** $-3 - 35$	**(o)** $-27 - 2$	**(p)** $-3 - (-4)$

4. Multiplying and dividing with negative numbers.

(a) 3×-5	**(b)** 5×-8	**(c)** -4×-7	**(d)** -4×-81
(e) $-6 \div 2$	**(f)** $-12 \div 4$	**(g)** $-30 \div 6$	**(h)** $-22 \div 11$
(i) $3 \div -3$	**(j)** $8 \div -4$	**(k)** $-45 \div -9$	**(l)** $-60 \div -12$

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5. Decimal number arithmetic.

(a) $24.8 + 3.25$	**(b)** $5.7 + 0.94$	**(c)** $18.5 - 3.3$	**(d)** $316.5 - 294$
(e) $98 - 67.5$	**(f)** 9.6×3	**(g)** 2.6×5	**(h)** 3.14×50
(i) 40×3.14	**(j)** 3.14×600	**(k)** 2000×3.14	**(l)** 158.25×2
(m) $4.5 \div 2$	**(n)** $30.5 \div 2$	**(o)** $17.8 \div 4$	**(p)** $16.1 \div 7$
(q) $1.2 \div 0.3$	**(r)** $18 \times 0.4 \div 0.9$	**(s)** $0.8 \div 1.2 \times 15$	**(t)** $6 \div 1.2$

6. Powers and roots.

(a) $(-3)^2$	**(b)** $(-7)^2$	**(c)** 15^2	**(d)** 20^2
(e) 30^2	**(f)** 50^2	**(g)** 4^3	**(h)** 5^3
(i) $(-3)^3$	**(j)** 2^4	**(k)** $(-2)^4$	**(l)** 2^5
(m) $\sqrt{49}$	**(n)** $\sqrt{81}$	**(o)** $\sqrt{144}$	**(p)** $\sqrt{900}$
(q) $\sqrt{1600}$	**(r)** $\sqrt[3]{8}$	**(s)** $\sqrt[3]{27}$	**(t)** $\sqrt[3]{64}$

7. Simplifying fractions.

(a) $\frac{33}{42}$	**(b)** $\frac{19}{38}$	**(c)** $\frac{6}{78}$	**(d)** $\frac{39}{26}$
(e) $\frac{138}{12}$	**(f)** $\frac{60}{1200}$	**(g)** $\frac{45}{360}$	**(h)** $\frac{240}{360}$
(i) $\frac{60}{360}$	**(j)** $\frac{72}{360}$	**(k)** $\frac{1000}{20}$	**(l)** $\frac{25}{600}$

8. Multiplying whole numbers by fractions.

(a) $\frac{3}{2} \times 8$	**(b)** $\frac{3}{2} \times 5$	**(c)** $27 \times \frac{4}{3}$	**(d)** $60 \times \frac{2}{3}$
(e) $\frac{1}{8} \times 400$	**(f)** $\frac{1}{2} \times 8 \times 12 \times \frac{2}{3}$	**(g)** $2 \times 5 \times 6 \times \frac{1}{5}$	**(h)** $8 \times 10 \times \frac{3}{8}$
(i) $\frac{1}{3} \times 6 \times 6$	**(j)** $\frac{1}{3} \times 10^2 \times 60$	**(k)** $\frac{3}{4} \times 15 \times 8 \times \frac{1}{5}$	**(l)** $\frac{2}{5} \times 6 \times \frac{1}{2} \times 25$

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