

**604** **FACCIO UN ESEMPIO** Scrivi, se possibile, una potenza con:

- a. la base positiva e il risultato positivo; [Esponente qualsiasi]
- b. la base positiva e il risultato negativo; [Impossibile]
- c. la base negativa e il risultato positivo; [Esponente pari]
- d. la base negativa e il risultato negativo; [Esponente dispari]
- e. la base negativa e il risultato uguale a +1. [Esponente 0]

**605** Scrivi i numeri mancanti.

- a.  $(-2)^{\dots} = +16$
- b.  $\dots^0 = 0$
- c.  $(\dots)^3 = -1$
- d.  $(-8)^0 = +1$
- e.  $(+5)^{\dots} = +25$
- f.  $(\dots)^3 = +27$
- g.  $(\dots)^2 = +9$
- h.  $(-10)^{\dots} = -100\ 000$

**606** Scrivi gli esponenti mancanti.

- a.  $+16 = (-4)^{\dots}$
- b.  $-27 = (-3)^{\dots}$
- c.  $+1 = (-4)^{\dots}$
- d.  $-\frac{1}{8} = \left(-\frac{1}{\dots}\right)^{\dots}$

**607** Esprimi ogni numero come potenza di un numero relativo a tuo piacere. C'è un solo modo per farlo?

- a. -32
  - b. +64
  - c. -1
  - d.  $+\frac{1}{4}$
- [a.  $(-2)^5$ ; b.  $(\pm 2)^4$ ,  $(+4)^3$ ,  $(\pm 8)^2$ ; c.  $(-1)^n$ , n dispari; d.  $\left(\pm \frac{1}{2}\right)^{\dots}$ ]

**608** **CALCOLO E STIMO** Senza fare calcoli completa con  $>$ ,  $<$  o  $=$ .

- a.  $\left(-\frac{7}{5}\right)^3 \dots < 0$
- b.  $(-6)^{10} \dots > 0$
- c.  $\left(-\frac{1}{3}\right)^8 \dots = \left(+\frac{1}{3}\right)^8$
- $(-18)^5 \dots < (-18)^2$
- $(+20)^0 \dots > (-6)^5$
- $(+100)^5 \dots > (+100)^3$

Calcola il valore delle espressioni con le potenze.

- 614**  $-2 \cdot (+3)^2 + (-2)^4$  [-2]
- 615**  $(-5)^2 \cdot (-2)^1 : (+10) - (-2)^5 - (+5)^2$  [+2]
- 616**  $(+1)^{10} - (-1)^9 + (-2)^2 \cdot (-5) + (-3)^2$  [-9]
- 617**  $4^2 + [(-10)^2 : 5^2 - (2^2 \cdot 3 - 3^2)^2 + 1]^2 : (7^2 - 6^2 - 3^2)^2 - 5^2 + 1$  [-7]
- 618**  $\frac{1}{5} \cdot \left(\frac{1}{8} - \frac{3}{4}\right) : \left(-\frac{1}{4}\right)^2 - (-2)^2 \cdot \left(1 - \frac{1}{2}\right)^3 \cdot \left(\frac{1}{7} + \frac{2}{3}\right)^0 - \frac{1}{2}$  [-3]
- 619**  $\left(\frac{3}{4} + 1\right)^3 : \left[\left(2 - \frac{1}{8}\right) \cdot \left(\frac{4}{3} - \frac{2}{5}\right)\right] - 1 - \frac{1}{16}$  [+2]
- 620**  $\left(\frac{1}{8} - \frac{3}{4}\right) \cdot \frac{4}{5} : \left(-\frac{1}{2}\right)^2 - \left(1 - \frac{1}{2}\right)^3 : \left(-\frac{1}{2}\right)^2 + \frac{1}{2}$  [-2]
- 621**  $(-1)^5 + \left(\frac{8}{5} + \frac{1}{7}\right)^0 + \left[\left(1 + \frac{1}{4}\right) + \left(\frac{12}{5} + \frac{3}{2} - \frac{7}{10}\right) : \left(-\frac{4}{5}\right)\right] : \left(\frac{3}{4} + 2\right) - \frac{1}{2}$  [-3]
- 622**  $\left[\left(-\frac{2}{5} + \frac{7}{10} - \frac{4}{5}\right)^2 - \left(-\frac{5}{2} + \frac{3}{4} + 2\right)^3\right] \cdot \left(\frac{4}{15} + \frac{1}{5} - \frac{1}{3}\right) - \left(\frac{13}{6} + \frac{1}{4} - 1 - \frac{7}{6}\right)^2 + \left(\frac{1}{2}\right)^5$  [0]

Calcola il valore delle espressioni con le potenze.

- 609** **GIÀ SVOLTO**
- a.  $-(-10)^2$
  - b.  $-6 - (-2)^3$

Quando devi svolgere delle espressioni con potenze di numeri relativi, calcola sempre prima le potenze, facendo molta attenzione ai segni. In particolare, cerca di non confondere il segno della potenza con l'eventuale segno presente fuori dalla parentesi.

- a.  $-(-10)^2 = -(+100) = -100$
- b.  $-6 - (-2)^3 = -6 - (-8) = -6 + 8 = +2$

- 610** a.  $-(-4)^2$
  - b.  $-(-3)^3$
  - c.  $- (+5)^2$
  - d.  $-(-1)^5$
- [a. -16; b. +27; c. -25; d. +1]

- 611** a.  $-1 - (-2)^3$
  - b.  $5 - (+4)^2$
  - c.  $-(-3)^3 + (-2)^2$
  - d.  $(-2)^3 - (-3)^2$
- [a. +7; b. -11; c. +31; d. -17]

- 612** a.  $-(5-7)^2$
  - b.  $(+4)^2 - (-3)^2$
  - c.  $2 + (-4+2)^3$
  - d.  $(-8)^2 - 6 \cdot 9$
- [a. -4; b. +7; c. -6; d. +10]

**613** **VERIFICO E CONTROLLO** Completa lo svolgimento delle espressioni. Se il risultato non coincide con quello indicato, ripercorri tutto il procedimento, individua gli errori e correggili.

- a.  $(-2)^4 : (-8) + 5 - 6 \cdot (-2) =$   
 $= (+16) : (-8) + 5 - (-12) =$   
 $= -2 + 5 + 12 = +15$  [ +15 ]
- b.  $(-1)^3 - (-6)^2 + (-5) \cdot (-6) =$   
 $= -1 - (+36) + (+30) =$   
 $= -1 - 36 + 30 = -7$  [ -7 ]

- 352**  $-(-6) + (+8) \cdot (-2) - 10 + (-14) \cdot (-2)$  [+8]
- 353**  $(-7 + 4) \cdot (-8) + (+5) \cdot (-4) - 7 - 11 + (+10) \cdot (+2)$  [+6]
- 354**  $18 - (-9) - (+6) \cdot (+4) + (+2) \cdot (-3) + 6 - 13$  [-10]
- 355**  $7 - 10 + (-6 + 7) \cdot (-3) \cdot (-8) + (-7) \cdot (+2)$  [+7]
- 356**  $(1 + 3 - 6) \cdot (4 - 5 + 6) + (-4 + 3) + (-8) \cdot (-3)$  [+13]
- 357**  $(2 - 5) \cdot (3 + 4 - 8 + 1) + (+6) \cdot (-5) - 10 + 7 - (-4) \cdot (+8)$  [-1]
- 358**  $(-11 - 1) \cdot (-2) + (-6 - 7 + 11) \cdot (15 - 12) - (-6 - 10) - 25$  [+9]
- 359**  $-(-7 - 8) + (+12) - (-8) \cdot (12 - 15 + 2) + (3 + 12 - 10) \cdot (18 - 17 - 6)$  [-6]
- 360**  $(-6 + 2 + 2) \cdot (-10 + 8) \cdot (-10 + 9) + 7 - 12 - (+2 + 3) \cdot (-11 + 8)$  [+6]
- 361**  $13 - 9 - (-12 + 15) \cdot (-1 + 7 - 5) \cdot (24 - 21 - 5) + (-7) \cdot (+2)$  [-4]
- 362**  $-16 - 4 + (+8 - 4) \cdot (12 - 8 + 1) - (-19) - (-5 - 1) \cdot (-11 + 8 + 6) \cdot (-15 + 8 + 6)$  [+1]
- 363**  $(-1 + 5) \cdot [-(+1 + 8) - (12 - 8)] + (-11 + 12) \cdot (8 - 6)$  [-50]
- 364**  $-11 - [(8 - 5 - 6) \cdot (-10 + 13 - 5) + (-13 + 15) \cdot (8 - 9)] \cdot (21 - 24)$  [+1]
- 365**  $[(-12) \cdot (+2) + (-5) \cdot (-5)] \cdot [-18 - (-5 - 7) + (9 - 4) - (+3 + 2)]$  [-6]
- 366**  $[-(5 - 7 - 4) \cdot (5 \cdot 2 - 13) - (12 - 18)] \cdot [-(12 - 10) + 18 - 21]$  [+60]
- 367**  $-15 \cdot \{(-6) \cdot (-10 + 14) - [(13 - 12 - 7) \cdot (18 - 15) - 5]\}$  [+15]
- 368**  $-1 - \{[(-5) \cdot (-8) - (-2 + 11) \cdot (5 - 1)] \cdot (-10 + 12) - (-5)\}$  [-14]
- 369**  $[(-8) \cdot (5 - 8) - (-10) \cdot (5 - 7)] \cdot \{10 - [-(5) + (-8) \cdot (10 - 12)]\}$  [-44]

**370** **VERIFICO E CONTROLLO** Nello svolgimento delle espressioni ci sono degli errori: individuali e correggili.

- a.  $-8 - 2 \cdot (+5 - 6) = -8 - 2 - 1 = -11$   $[-8 - 2 \cdot (-1) = -6]$  c.  $-4 - 3 \cdot (+3) = \frac{(-7) \cdot (+3) = -21}{[-4 - 9 = -13]}$
- b.  $(-6 + 5 - 4) \cdot (-7) = (-5) \cdot (-7) = -35$  [+35] d.  $(1 - 4) \cdot (3 + 2) - 2 = \frac{(-3) \cdot (+5) \cdot (-2) = +30}{[(-3) \cdot (+5) - 2 = -17]}$

Calcola il valore delle espressioni con i numeri razionali.

- 371**  $-2 \cdot \left(+\frac{2}{11}\right) + \left(-\frac{7}{2}\right) \cdot \left(-\frac{1}{11}\right)$   $\left[-\frac{1}{22}\right]$  **374**  $\left(-1 - \frac{1}{2}\right) \cdot \left(\frac{5}{4} - \frac{1}{2}\right) + \left(\frac{5}{12} - \frac{1}{8}\right)$   $\left[-\frac{5}{6}\right]$
- 372**  $\left(-\frac{2}{7}\right) \cdot (-3) + \left(-\frac{2}{7}\right) \cdot \left(+\frac{1}{5}\right) - \frac{9}{5}$  [-1] **375**  $\left(-\frac{4}{5} + \frac{2}{15}\right) + \left(-3 + \frac{1}{12}\right) \cdot \left(+\frac{1}{5}\right)$   $\left[-\frac{5}{4}\right]$
- 373**  $\left(\frac{3}{2} - 2 + \frac{1}{10}\right) \cdot \left(+\frac{2}{15}\right) + \frac{1}{5} - \frac{2}{75}$   $\left[+\frac{3}{25}\right]$  **376**  $\left(-\frac{10}{7} - 1 - \frac{1}{14}\right) \cdot \left(-\frac{1}{3}\right) + \left(-1 - \frac{1}{4}\right)$   $\left[-\frac{5}{12}\right]$
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- 377**  $\left(-\frac{1}{2} + \frac{2}{3} + 1\right) \cdot \left(-1 - \frac{1}{5}\right) - \left(-\frac{1}{3}\right) \cdot \left(1 + \frac{1}{2}\right)$   $\left[-\frac{9}{10}\right]$
- 378**  $2 \cdot \left(-\frac{1}{9} + \frac{1}{3} - \frac{1}{27}\right) \cdot \left(-\frac{9}{5}\right) + \left(-\frac{11}{6}\right) \cdot \left(-\frac{2}{3}\right)$   $\left[+\frac{5}{9}\right]$
- 379**  $\left(-\frac{1}{2} + \frac{8}{5}\right) \cdot \left(-1 + \frac{6}{11}\right) + \left(\frac{2}{3} - \frac{1}{6}\right) \cdot \left(-\frac{1}{2}\right)$   $\left[-\frac{3}{4}\right]$
- 380**  $\left(-\frac{3}{4} - \frac{4}{3}\right) \cdot \left(3 - \frac{3}{5}\right) + \left(-1 - \frac{1}{2}\right) \cdot \left(-\frac{3}{5} + \frac{1}{10} - \frac{1}{2}\right)$   $\left[-\frac{7}{2}\right]$

- 488  $\frac{7}{15} : \left(-\frac{4}{3} + \frac{19}{15} - \frac{7}{15}\right) - \left[-\frac{4}{3} : 16 : \left(-\frac{2}{9}\right)\right]$   $\left[-\frac{5}{4}\right]$
- 489  $\left[\left(\frac{1}{10} + \frac{1}{5}\right) \cdot \left(\frac{1}{9} + \frac{1}{3}\right)\right] : \left(2 + \frac{1}{5} - 1\right) + \frac{2}{9}$   $\left[+\frac{1}{3}\right]$
- 490  $\left[7 - \frac{1}{3} - \left(\frac{3}{2} - 2\right)\right] \cdot \frac{4}{3} + \frac{5}{6} - 22 \cdot \frac{1}{2} + \frac{1}{18}$   $\left[-\frac{5}{9}\right]$
- 491  $\left[1 + \left(1 - \frac{7}{4}\right) \cdot \left(\frac{1}{5} + 1\right)\right] : \left(1 - \frac{3}{4}\right) - \frac{1}{2} - \frac{1}{5}$   $\left[-\frac{3}{10}\right]$
- 492  $\left[\frac{1}{2} + \frac{1}{3} - \left(\frac{1}{4} - \frac{1}{5}\right) - \frac{1}{6}\right] : \left[-1 + \left(\frac{1}{3} - \frac{1}{8}\right) + \frac{1}{6}\right] + \frac{4}{5} \cdot \frac{1}{10}$   $\left[-\frac{68}{75}\right]$
- 493  $\left(\frac{3}{8} - \frac{1}{4}\right) + \left[\left(-\frac{1}{2} + \frac{2}{3} - 2\right) \cdot \left(-\frac{10}{7}\right) + \left(-\frac{2}{3} + 1 - \frac{1}{5} - \frac{2}{15}\right)\right] + \frac{1}{24}$   $\left[+\frac{1}{2}\right]$
- 494  $\left(\frac{5}{6} - \frac{1}{3} + \frac{12}{5} - \frac{1}{6}\right) : \left(1 - \frac{2}{3}\right) \cdot \left(-\frac{5}{41}\right) + \left(\frac{3}{4} + \frac{1}{2} - \frac{3}{8}\right) : \left(\frac{5}{2} - \frac{1}{8} - 1\right)$   $\left[-\frac{4}{11}\right]$
- 495  $\left[\frac{3}{4} + \frac{5}{13} \cdot \left(\frac{2}{5} - \frac{1}{2} + \frac{3}{4}\right)\right] : \left[\frac{1}{7} \cdot \left(\frac{3}{4} + \frac{5}{8} - \frac{1}{2}\right) + 1\right] - \frac{1}{9}$   $\left[+\frac{7}{9}\right]$
- 496  $\frac{1}{3} \cdot \left[-\frac{2}{3} \cdot \left(\frac{2}{5} - \frac{1}{3}\right)\right] : \left(-\frac{1}{15}\right) \cdot 3 + \frac{1}{3}$   $\left[+1\right]$
- 497  $\left[\frac{15}{4} \cdot \left(\frac{1}{2} + \frac{3}{5} - \frac{7}{10}\right)\right] : \left[\frac{4}{9} \cdot \left(-\frac{3}{4} + \frac{5}{8} - \frac{5}{2}\right)\right] + 1$   $\left[-\frac{2}{7}\right]$
- 498  $\left(\frac{5}{4} + 2 - \frac{7}{3}\right) : \frac{1}{3} - \left[\left(-\frac{1}{2} + \frac{2}{3} - \frac{1}{5}\right) \cdot \frac{3}{2} - \frac{1}{5}\right] + \frac{15}{7} \cdot \left(\frac{1}{2} - \frac{3}{5} + \frac{1}{3}\right)$   $\left[+\frac{7}{2}\right]$
- 499  $\left[\left(-\frac{7}{5} + \frac{3}{2} + \frac{21}{10}\right) + 1\right] : \left(\frac{2}{3} - \frac{1}{5} + \frac{6}{5}\right) \cdot \left(-\frac{5}{8}\right) + \frac{1}{5}$   $\left[-1\right]$
- 500  $\left[-\frac{2}{3} \cdot \left(-\frac{1}{3}\right) + \frac{1}{2} \cdot \left(\frac{1}{5} - 1\right)\right] : \left[1 + \frac{10}{3} \cdot \left(-\frac{1}{5}\right)\right] \cdot \left(\frac{2}{3} + 1\right) + \frac{4}{9}$   $\left[-\frac{4}{9}\right]$
- 501  $\left[-\left(2 + \frac{1}{4}\right) - \left(-1 - \frac{1}{3}\right)\right] : \left(-\frac{3}{2} \cdot \frac{11}{2}\right) + \frac{2}{9}$   $\left[+\frac{1}{3}\right]$
- 502  $\left[\frac{4}{9} \cdot \left(\frac{1}{2} - \frac{1}{5} - \frac{3}{20}\right) - \frac{1}{12}\right] + \left(\frac{7}{10} - \frac{5}{4}\right) : \left(\frac{6}{5} - \frac{9}{20}\right)$   $\left[-\frac{3}{4}\right]$
- 503  $\left[-\frac{3}{4} \cdot \left(\frac{1}{5} + 1\right) + 1\right] : \left(\frac{1}{2} - \frac{1}{4}\right) - \frac{1}{2} - \frac{1}{10}$   $\left[-\frac{1}{5}\right]$
- 504  $\left(-\frac{4}{15} + \frac{2}{5}\right) : \frac{4}{25} - \left(5 - \frac{3}{5}\right) \cdot \frac{1}{4} + \frac{19}{15} + \left(+\frac{13}{5}\right) \cdot \left(-\frac{25}{6}\right)$   $\left[-\frac{3}{2}\right]$
- 505  $-2 \cdot \left[\left(-\frac{3}{5} + \frac{10}{3}\right) \cdot \left(-\frac{7}{5} + \frac{9}{4} \cdot \frac{1}{15} + \frac{9}{4}\right) - \left(1 - \frac{1}{10}\right)\right] \cdot 3$   $\left[-11\right]$
- 506  $\frac{2}{81} + \left[-\frac{1}{3} + \frac{2}{3} \cdot \left(-\frac{1}{2} - \frac{1}{3}\right) - \frac{21}{45} \cdot \frac{4}{7}\right] : \left(1 + \frac{1}{5} - 3\right) - \frac{1}{3}$   $\left[+\frac{1}{3}\right]$
- 507  $\left[\left(1 - \frac{3}{5}\right) + \left(-\frac{4}{25} + \frac{9}{10} - \frac{3}{2}\right) \cdot \frac{10}{19}\right] + \left(-\frac{1}{6} - \frac{2}{3}\right) \cdot \left(\frac{1}{2} - \frac{3}{10} + \frac{7}{4}\right)$   $\left[-\frac{13}{8}\right]$
- 508  $\frac{1}{3} \cdot \left[\left(\frac{5}{9} - 1 + \frac{2}{3}\right) \cdot \left(\frac{1}{13} + \frac{19}{2} - \frac{1}{6}\right) \cdot \left(-\frac{3}{4} + 2 - \frac{5}{4}\right) + \frac{1}{2}\right] + \left(\frac{1}{3} + \frac{7}{9}\right) \cdot \left(\frac{3}{4} - 1\right) \cdot \left(-\frac{1}{5} + \frac{1}{2}\right)$   $\left[+\frac{1}{12}\right]$
- 509  $\left\{\left(5 + \frac{5}{3}\right) \cdot \left[\frac{1}{2} - \frac{3}{5} + \left(\frac{2}{3} - \frac{1}{6} - \frac{5}{4}\right) + \frac{3}{2}\right]\right\} : \left[\left(1 + \frac{1}{4}\right) \cdot \left(-\frac{1}{3} + \frac{6}{5} - 2\right) + \left(2 - \frac{1}{2}\right) - \frac{5}{8}\right]$   $\left[-8\right]$
- 510  $\left[\left(\frac{5}{4} + \frac{2}{5}\right) \cdot \left(1 - \frac{1}{11}\right) - \frac{5}{4} - 1\right] : \left\{\frac{2}{17} \cdot \left[-\frac{7}{4} + \frac{3}{2} - \left(\frac{5}{3} \cdot \frac{5}{2} - \frac{1}{6}\right)\right]\right\} - 1$   $\left[+\frac{1}{2}\right]$
- 511  $\frac{4}{9} \cdot \left\{\frac{3}{4} - \left[\left(\frac{7}{20} - \frac{3}{5} + 1\right) + \frac{3}{2}\right]\right\} + \left(-1 + \frac{1}{5}\right) \cdot \left[\frac{1}{4} + \left(1 - \frac{1}{3}\right) - \frac{1}{2}\right]$   $\left[-1\right]$
- 512  $\frac{1}{9} + \left\{\left(1 - \frac{11}{18}\right) - \left(\frac{3}{2} - \frac{4}{3} + 1\right) \cdot \left[1 + \left(-\frac{8}{15}\right) \cdot \left(-3 + \frac{7}{4}\right)\right]\right\} + \frac{3}{2} + \frac{7}{6} - \frac{1}{9}$   $\left[+\frac{10}{9}\right]$

- 700  $1 + \left[ \left(1 - \frac{5}{4}\right)^3 : \left(\frac{1}{8} + 1 - \frac{7}{4}\right) - 1 + \frac{3}{5} \right] : \left[ \frac{5}{8} \cdot \left(-\frac{6}{5}\right) \right]^3 - \frac{1}{3}$   $\left[ +\frac{1}{3} \right]$
- 701  $\left[ \left(\frac{7}{6}\right)^7 : \left(\frac{7}{6}\right)^5 \right] \cdot \left[ \left(\frac{1}{7}\right)^0 + \left(\frac{3}{4} - \frac{2}{3} - \frac{7}{12}\right)^2 : \left(\frac{5}{8} - \frac{1}{4} + \frac{1}{2}\right) \right] - \left(-\frac{1}{2}\right)^2$   $\left[ +\frac{3}{2} \right]$
- 702  $\left(\frac{2}{3}\right)^5 \cdot \left(\frac{2}{3}\right) : \left(\frac{2}{3}\right)^4 - \left(2 - \frac{1}{4}\right) \cdot \left[\left(\frac{4}{9} - \frac{5}{6}\right) : \left(1 + \frac{4}{3}\right)^2 - \frac{1}{2}\right] - 1$   $\left[ +\frac{4}{9} \right]$
- 703  $\left\{ \left(-\frac{11}{14}\right)^2 \cdot \left(\frac{7}{11}\right)^2 - \left[\left(\frac{1}{3}\right)^2 + \left(\frac{1}{2}\right)^2\right] \right\} : \left[ \frac{1}{3} + \left(\frac{2}{3}\right)^2 - \frac{5}{9} \right] + \frac{1}{2}$   $[0]$
- 704  $\left[ \left(-\frac{1}{2} - 3\right)^3 \cdot \left(\frac{1}{2} + 3\right)^2 : \left(-\frac{5}{2} - 1\right)^4 + 1 \right] + \left(-\frac{2}{3}\right)^2 \cdot \left(1 - \frac{1}{4}\right)^2 + \frac{1}{4}$   $[-2]$
- 705  $\left(\frac{1}{9} + \frac{4}{3} - \frac{3}{2}\right) \cdot \left\{ \left[\left(2 - \frac{1}{11}\right) \cdot \left(3 - \frac{10}{7}\right)\right]^2 + \left(1 + \frac{1}{2} + \frac{5}{4}\right)^2 : \left(\frac{1}{2} + \frac{4}{3}\right)^2 \right\} + \left(-\frac{1}{2}\right)^3$   $\left[ -\frac{3}{4} \right]$
- 706  $\left[ \left(\frac{5}{2} - 3\right)^3 \cdot \left(\frac{1}{2} - 1\right) : \left(-\frac{1}{2}\right)^2 \right]^2 - \left[ \left(-\frac{1}{2}\right)^6 : \left(-\frac{1}{2}\right)^4 \right]^2 + \left(\frac{1}{2} + \frac{3}{5} - 1\right) \cdot \left(-\frac{1}{4} + 3 - \frac{3}{2}\right)$   $\left[ +\frac{1}{8} \right]$
- 707  $\left\{ \left[\left(\frac{5}{4}\right)^2 : \frac{4}{5}\right] : \left[\left(\frac{15}{8}\right)^8 : \left(\frac{15}{8}\right)^5\right] - \left(1 - \frac{1}{3}\right) \right\} : \left[\left(\frac{3}{5} + 1\right)^2 : \left(\frac{16}{15}\right)^2 : \left(-1 - \frac{1}{2}\right)^3\right]^2 - \frac{1}{6}$   $[-1]$
- 708  $\left\{ (-4)^2 \cdot \left[\frac{5}{8} + \left(\frac{1}{8} - \frac{3}{4}\right) \cdot \left(\frac{3}{5} - \frac{7}{10}\right)\right] \right\} : \left[\left(\frac{1}{2} + 7\right)^3 : \left(1 + \frac{1}{2} + \frac{9}{4}\right)^3 : (-2)^4 + 5\right] + (-1)^2$   $[+3]$
- 709  $\left[ \left(-1 - \frac{3}{4}\right) \cdot \left(\frac{1}{3} - \frac{5}{7}\right) \right]^3 \cdot \left\{ \left[\left(\frac{9}{5} - \frac{7}{2} + \frac{11}{4}\right) \cdot \left(-\frac{1}{7} - \frac{2}{21}\right)\right]^2 - \frac{3}{4} - 1 \right\} - \frac{1}{8} + \left(-\frac{1}{2}\right)^2$   $\left[ -\frac{3}{8} \right]$
- 710  $\left\{ \left[-\left(1 + \frac{1}{3}\right) + \frac{4}{3}\right] : \left(\frac{1}{3}\right)^4 \right\}^3 : \left[\left(1 + \frac{5}{2} + \frac{1}{3}\right) : \left(1 + \frac{1}{3}\right)\right]^2 + \frac{1}{5}$   $\left[ +\frac{1}{5} \right]$
- 711  $\left\{ 1 + \frac{1}{2} \cdot \left[ 1 + \left(\frac{1}{2} + 1\right)^2 \cdot \frac{2}{3} \right]^2 - \left(\frac{1}{4} - \frac{1}{2} + 1\right)^2 \right\} : \left(2 + \frac{3}{8}\right) + 1 - \frac{1}{4}$   $\left[ +\frac{9}{4} \right]$
- 712  $32 \cdot \left[ \left(1 - \frac{1}{4}\right)^4 \cdot \left(2 - \frac{2}{3}\right)^4 + \frac{2}{3} \right]^3 \cdot \left(1 - \frac{2}{5}\right)^3 : 2^5 + \left[\left(\frac{1}{2}\right)^3 - \left(-\frac{1}{2}\right)^2 - 4\right] \cdot \left(1 - \frac{7}{11}\right) + \frac{1}{2}$   $[0]$
- 713  $\left\{ \left[\left(2 + \frac{1}{4} - \frac{7}{2}\right)^2 - \left(2 - \frac{1}{6} - \frac{19}{12}\right)^2\right] : \left(-\frac{4}{5} - \frac{7}{10}\right) \right\} : \left\{ \left[\left(2 + \frac{1}{4} - \frac{5}{2}\right)^2 - \left(\frac{11}{6} - \frac{7}{12}\right)^2\right] \cdot \left(-\frac{2}{3}\right)^3 \right\} - \frac{1}{4}$   $\left[ -\frac{5}{2} \right]$
- 714  $\left[ \left(-\frac{10}{3}\right)^2 \cdot \left(-\frac{7}{20} - \frac{1}{15} + \frac{1}{4}\right) + \left(\frac{3}{2}\right)^2 \cdot \frac{4}{3} \right] : \left\{ 13 \cdot \left(\frac{1}{6}\right)^2 - \left[-\frac{12}{35} : \left(-\frac{8}{21}\right) + \frac{2}{5}\right] : \left(-\frac{3}{5} - 2\right) \right\} - \frac{1}{3}$   $[+1]$
- 715  $\frac{1}{2} : \left\{ \left(\frac{1}{4} - \frac{1}{10}\right)^3 : \frac{27}{8} - \left(\frac{1}{10}\right)^3 + \left(-\frac{2}{3}\right)^2 \cdot \left[\frac{13}{5} \cdot \left(1 - \frac{7}{13}\right) \cdot \left(1 - \frac{1}{4}\right)\right] - \frac{1}{4} \right\} - \frac{1}{3}$   $[+3]$
- 716  $\left\{ \left[\left(\frac{3}{2} - \frac{1}{3}\right)^2 \cdot \left(\frac{1}{14} + \frac{1}{7}\right) + \left(\frac{1}{4} - \frac{1}{6}\right)^2 \cdot 3\right] : \left(\frac{1}{2} + 2\right)^2 \right\} : \left[\left(1 - \frac{1}{10}\right) \cdot \left(\frac{1}{3} - \frac{4}{15}\right) + \left(\frac{1}{2} - \frac{2}{5}\right)^2 \cdot 2\right] + \frac{1}{8}$   $\left[ +\frac{3}{4} \right]$
- 717  $\left(-\frac{13}{4}\right)^2 : \left(\frac{3}{2} + 1 + \frac{3}{4}\right)^2 - \left\{ 1 + \frac{1}{3} + \left(\frac{3}{5} - \frac{4}{15}\right)^3 : \left[ 1 - 2 \cdot \left(-\frac{2}{3}\right)^2 \right] \right\}^2 \cdot \left(2 - \frac{7}{5}\right)^3 + \frac{1}{2} - \frac{1}{10}$   $\left[ +\frac{4}{5} \right]$
- 718  $\frac{\left(\frac{1}{4} - \frac{5}{9} + \frac{7}{36}\right) : \left(-\frac{1}{6}\right)^2 + 3}{\left(-\frac{10}{3} - 2^3\right) : \left(-\frac{1}{3} + \frac{5}{8} + \frac{5}{12}\right)} \cdot 2^4$   $[+1]$
- 719  $\frac{\left(-\frac{3}{2}\right)^3 : \left(\frac{9}{5} + \frac{3}{4} - 9\right) - \frac{1}{43}}{\left(\frac{1}{2}\right)^8 \cdot \left(\frac{1}{2}\right)^3 : \left[\left(\frac{1}{2}\right)^5\right]^2}$   $[+1]$
- 720  $\frac{-\frac{2}{3} + \left[\left(\frac{4}{3} - 2\right)^2 \cdot \left(1 - \frac{5}{3}\right)^2 - 1\right] \cdot \left(2 - \frac{1}{5}\right)}{\left(-1 - \frac{1}{2}\right)^3 \cdot \left(-\frac{2}{9}\right)^2 - 3} : \left(-\frac{2}{3}\right)^2$   $\left[ +\frac{3}{2} \right]$