

1 Se a, b e c sono tre numeri naturali diversi da zero, allora:

	V	F		V	F
a) $(a+b) \cdot c = a \cdot c + b \cdot c$	<input type="checkbox"/>	<input type="checkbox"/>	b) $(a+b) + c = a + (b+c)$	<input type="checkbox"/>	<input type="checkbox"/>
c) $(a-b) \cdot c = a \cdot c - b \cdot c, \forall a, b$	<input type="checkbox"/>	<input type="checkbox"/>	d) $(a-b) - c = a - (b-c)$	<input type="checkbox"/>	<input type="checkbox"/>
e) $a + b \cdot c = (a+b) \cdot c$	<input type="checkbox"/>	<input type="checkbox"/>	f) $(a:b) : c = a : (b:c)$	<input type="checkbox"/>	<input type="checkbox"/>
g) $a + b \cdot c = (a+b) \cdot (a+c)$	<input type="checkbox"/>	<input type="checkbox"/>	h) $a - b = (a+c) - (b+c), a \geq b$	<input type="checkbox"/>	<input type="checkbox"/>

2 Stabilire, senza eseguire i calcoli, se le uguaglianze sono vere o false:

a) $47 + (3 \cdot 4 \cdot 6) = (47+3) \cdot (47+4) \cdot (47+6)$	<input type="checkbox"/>	<input type="checkbox"/>	b) $75 + 24 - 36 - 28 = (75+24) - (36-28)$	<input type="checkbox"/>	<input type="checkbox"/>
c) $142 - 63 - 28 = (142-63) - 28$	<input type="checkbox"/>	<input type="checkbox"/>	d) $27 + 18 + 14 = 18 + 14 + 27$	<input type="checkbox"/>	<input type="checkbox"/>
e) $62 + 47 - 28 = 62 - 28 + 47$	<input type="checkbox"/>	<input type="checkbox"/>	f) $132 \cdot (165 + 36) = 132 \cdot 165 + 132 \cdot 36$	<input type="checkbox"/>	<input type="checkbox"/>

Domande a risposta multipla

3 $5 + 3 \cdot 2 =$

- a) $8 \cdot 2 = 16$ b) $5 + 3 \cdot 5 \cdot 2 = 35$ c) $5 + 6 = 11$ d) non si può eseguire

4 $16 : 8 : 2 =$

- a) $2 : 2 = 1$ b) $16 : 4 = 4$ c) $16 : 2 : 8 = 8 : 8 = 1$ d) non si può eseguire

5 Se $a \cdot b = 0$
allora:

- a) $a = 0$ b) $a = b = 0$ c) $a = 0$ oppure $b = 0$ d) $b = 0$

6 Se $a \neq 0$ allora

- a) $a \cdot 0 = a$ b) $a \cdot 0 = 0$ c) $a : 0 = a$ d) $a : 0 = 0$

7 $7 : 0 =$

- a) 1 b) 0 c) 7 d) non è definito

Eseguire le seguenti operazioni con i numeri decimali e verificare i risultati eseguendo le stesse operazioni dopo aver trasformato i numeri decimali in frazioni. Disporre poi i risultati in ordine crescente.

8 $2,4 : 0,02$ $12,25 \times 0,1$ $0,3 : 0,4$

9 $0,08 : 0,04$ $24 : 0,04$ $24 : 0,6$ $1,8 : 0,12$

10 $0,2^2$ $1,2^2$ $0,03^2$ $0,2^3$ $1,1^2 \times 0,1^2$

11 $2,5 : 0,01$ $0,4^2 : 0,2^2$ $0,3^3 \times 1,2^2$ $2,5^2 : 0,1^3$

Determinare le frazioni generatrici, ridotte ai minimi termini, dei numeri periodici.

12 $0,\overline{08}$ $3,\overline{51}$ $8,\overline{71}$ $3,\overline{74}$ $0,\overline{23}$ $2,\overline{34}$

13 $4,1\overline{8}$ $9,4\overline{7}$ $9,1\overline{2}$ $3,5\overline{3}$ $0,3\overline{57}$ $3,7\overline{2}$

Senza eseguire le divisioni, stabilisci se ciascuna delle seguenti frazioni rappresenta un numero decimale limitato, periodico semplice o periodico misto (trovi aiuto qui)

14 $\frac{3}{15}$; $\frac{4}{77}$; $\frac{11}{22}$; $\frac{2}{25}$; $\frac{5}{65}$; $\frac{7}{40}$; $\frac{1}{30}$; $\frac{2}{42}$; $\frac{6}{30}$; $\frac{3}{30}$

$$15 \quad \frac{10}{70} ; \frac{50}{700} ; \frac{7}{700} ; \frac{5}{9} ; \frac{3}{99} ; \frac{10}{14} ; \frac{7}{20} ; \frac{7}{10} ; \frac{13}{26}$$

Determinare la rappresentazione decimale delle seguenti frazioni, eseguendo la divisione tra numeratore e denominatore.

$$16 \quad \frac{4}{3} ; \frac{3}{4} ; \frac{15}{24} ; \frac{1}{3} ; \frac{3}{7} ; \frac{5}{6} ; \frac{4}{9} ; \frac{10}{15} ; \frac{4}{11} ; \frac{12}{13}$$

$$17 \quad \frac{1}{12} ; \frac{3}{27} ; \frac{3}{48} ; \frac{56}{36} ; \frac{25}{11} ; \frac{100}{24} ; \frac{55}{24} ; \frac{121}{39} ; \frac{1139}{20}$$

Test

18 Se $a, b \in \mathbb{N}$ e $m, n \in \mathbb{N}$, allora:

	V	F		V	F
a) se $n > 1$ allora $a^n = a \cdot a \dots \cdot a$ (n volte)	<input type="checkbox"/>	<input type="checkbox"/>	b) $a^0 = 1, \forall a$	<input type="checkbox"/>	<input type="checkbox"/>
c) $a^1 = a, \forall a$	<input type="checkbox"/>	<input type="checkbox"/>	d) $a^n \cdot a^m = a^{n+m}$	<input type="checkbox"/>	<input type="checkbox"/>
e) $(a^m)^n = (a^n)^m$	<input type="checkbox"/>	<input type="checkbox"/>	f) $(a \cdot b)^n = a \cdot b^n$	<input type="checkbox"/>	<input type="checkbox"/>
g) $(a \cdot b)^n = a^n \cdot b^n$	<input type="checkbox"/>	<input type="checkbox"/>	h) $a^n \cdot a^m = a^{n \cdot m}$	<input type="checkbox"/>	<input type="checkbox"/>

Domande a risposta multipla:

- 19 $5^3 \times 5^4 =$ a) $5^{3 \times 4} = 5^{12}$ b) $5^{3+4} = 5^7$ c) $(5^3)^4 = \dots$ d) $5^{3^4} = \dots$
- 20 $5^3 \times 3^3 =$ a) 8^3 b) 15^6 c) 15^3 d) 15^9
- 21 $5^2 + 3^2 =$ a) $(5+3)^2$ b) $(5 \times 3)^2$ c) $25+9$ d) $(5^3)^2$
- 22 $3^3 \times (3^5 : 3^2)^2 =$ a) 3^9 b) 3^{26} c) 3^{12} d) 3
- 23 $(3^2 \times 3^3) : 3^2 =$ a) 3^3 b) 3^4 c) 6 d) 10
- 24 $\{[(5)^2]^3\}^4 =$ a) 5^9 b) 5^{10} c) 5^{12} d) 5^{24}
- 25 $8^3 : 4^3 =$ a) 4^3 b) 2^3 c) 2^0 d) 4^0

Applicando le proprietà $a^n \cdot a^m = a^{n+m}$ e $a^n : a^m = a^{n-m}$, calcolare

- 26 $(-8)^5 : (-8)^3$ $(+15)^4 : (+15)^3$ $(-18)^6 : (-18)^4$ $(-12)^7 : (-18)^3$
- 27 $\left(-\frac{3}{4}\right)^5 \cdot \left(-\frac{3}{4}\right)^3 : \left(-\frac{3}{4}\right)^6$ $\left(+\frac{5}{4}\right)^8 : \left(+\frac{5}{4}\right)^5 : \left(+\frac{5}{4}\right)^2$ $\left(-\frac{1}{2}\right)^3 : \left(+\frac{1}{2}\right)^2 \cdot \left(-\frac{1}{2}\right)^4$
- 28 $x^5 \cdot x^0 \cdot x^3$ $a^7 : a^3 \cdot a^4$ $b^5 : b^3 : b^2$ $b^5 : (b^3 : b^2)$
- 29 $a^7 : a^4 \cdot a^3 : a^2$ $(a^7 : a^4) \cdot (a^3 : a^2)$ $a^5 : (a^4 \cdot a^3 : a^2)$ $a^7 : (a^4 \cdot a^3) : a^2$
- 30 $\{[(-2)^5 \cdot (-2)^3] : (-2)^6\} : (-2)^2$
- 31 $\left\{ \left[\left(+\frac{1}{2} \right)^3 \cdot \left(-\frac{1}{2} \right)^2 \cdot \left(+\frac{1}{2} \right)^5 \right] : \left[\left(-\frac{1}{2} \right)^4 \cdot \left(-\frac{1}{2} \right)^0 \right] \right\} : \left(+\frac{1}{2} \right)^5$

Applicando la proprietà $(a^n)^m = a^{n \cdot m}$ calcolare:

$$32 \quad [(-2)^2]^3 \quad [(+3)^3]^4 \quad \{[(-5)^2]^3\}^0 \quad \{[(+7)^3]^4\}^2$$

$$33 \quad \left\{ \left[\left(-\frac{1}{3} \right)^2 \right]^5 \right\}^3 \quad \left\{ \left[\left(+\frac{3}{5} \right)^2 \right]^6 \right\}^3 \quad \left\{ \left[\left(+\frac{5}{11} \right)^2 \right]^5 \right\}^0 \quad \left\{ \left[\left(-\frac{6}{13} \right)^3 \right]^5 \right\}^2 \quad \left\{ \left[\left(-\frac{1}{2} \right)^4 \right]^2 \right\}^3 \cdot \left\{ \left[\left(+\frac{1}{2} \right)^6 \right]^2 \right\}^3$$

$$34 \quad [(-2)^5]^2 : (-2)^7 \cdot (-2)^2 \quad [(-2)^3]^3 : [(-2)^2]^2$$

$$35 \quad [(x^3)^4]^2 \quad [(b^3)^n]^4 \quad [(b^n)^3]^4 \quad [(b^4)^3]^n \quad [(b^m)^0]^n$$

Applicando le proprietà $(a \cdot b)^n = a^n \cdot b^n$ e $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$ trasformare le seguenti potenze in prodotto o quoziente di potenze

$$36 \quad 10^2 \quad 15^3 \quad (a \cdot b)^3 \quad (4,2 \cdot 0,5)^3 \quad (-10)^7 \quad (+100)^3 \quad [10^2 = 2^2 \cdot 5^2; \dots]$$

$$37 \quad \left(+\frac{2}{5}\right)^2 \quad \left(-\frac{5}{3}\right)^3 \quad \left(3 \cdot \frac{1}{2}\right)^2 \quad \left(-\frac{17}{4} \cdot \frac{2}{17}\right)^3 \quad \left[3 \cdot \left(1 - \frac{1}{2}\right)\right]^2 \quad \left[\frac{2^2}{5^2}; \dots\right]$$

Applicando le proprietà delle potenze scrivere sotto forma di un'unica potenza:

$$38 \quad \left(-\frac{1}{2}\right)^4 \cdot \left(+\frac{1}{2}\right)^3 \cdot \left(-\frac{1}{2}\right)^2 \quad \left(-\frac{3}{4}\right)^3 \cdot \left(+\frac{3}{4}\right)^4 \cdot \left(-\frac{3}{4}\right)^2$$

$$39 \quad (-2)^5 \cdot (+6)^5 \cdot \left(-\frac{1}{12}\right)^5 \quad \left(+\frac{3}{4}\right)^4 \cdot \left(-\frac{2}{7}\right)^4 \cdot \left(-\frac{14}{3}\right)^4$$

Calcolare le seguenti potenze a esponente negativo:

$$40 \quad \left(+\frac{2}{7}\right)^{-1} \quad \left(+\frac{3}{5}\right)^{-2} \quad \left(-\frac{5}{2}\right)^{-3} \quad \left(+\frac{1}{8}\right)^{-2}$$

$$41 \quad \left(-\frac{2}{5}\right)^{-2} \quad (-0,3)^{-2} \quad \left(-\frac{5}{8}\right)^{-1} \quad \left(-\frac{4}{5}\right)^{-3}$$

$$42 \quad \left(-1 + \frac{3}{4}\right)^{-1} \quad \left(+\frac{1}{2} + \frac{1}{3} + \frac{7}{6}\right)^{-4} \quad \left(+\frac{4}{3} + \frac{5}{2} - \frac{17}{6}\right)^{-8} \quad \left(-0,2 + \frac{1}{3}\right)^{-1}$$

Determinare il valore della x affinché le seguenti uguaglianze risultino vere:

$$43 \quad \left(-\frac{2}{5}\right)^x = +1 \quad \left(-\frac{3}{4}\right)^x = +\frac{9}{16} \quad \left(-\frac{1}{3}\right)^x = +\frac{1}{81} \quad -\left(-\frac{1}{2}\right)^x = -\frac{1}{8}$$

$$44 \quad x^3 = -\frac{8}{27} \quad x^7 = 0 \quad x^{121} = -1 \quad x^{121} = +1 \quad x^5 = +\frac{1}{32}$$

$$45 \quad (-3)^x = +\frac{1}{9} \quad \left(-\frac{1}{4}\right)^x = -16 \quad -\left(+\frac{1}{2}\right)^x = -2 \quad -\left(+\frac{1}{3}\right)^x = -9 \quad -\left(-\frac{1}{2}\right)^x = -2$$

$$46 \quad x^{-5} = -1 \quad x^{-3} = +1 \quad -x^{-1} = -\frac{1}{2} \quad -x^{-1} = +8$$

Calcolare il valore delle seguenti espressioni, applicando dove possibile le proprietà delle potenze:

$$1 \quad [(1, \bar{3})^2 - (0, \bar{6})^2] : [(1, \bar{3} + 0, \bar{6}) \times (1, \bar{3} - 0, \bar{6})] \quad [1]$$

$$2 \quad 1 + \frac{1}{2} \times \left\{ 1 + 0,5 \times \left[(0,41\bar{6} + 0,58\bar{3} - 0, \bar{3}) \cdot 3 \times \left(1 - \frac{1}{2}\right)^2 \right]^2 : \frac{1}{8} \right\} \times \frac{2}{5} + 0,6 \quad [2]$$

$$3 \quad 1 - \left\{ \left[(0, \bar{7} + 0, \bar{8})^2 \times \frac{1}{2} \times (2 - 1,2)^2 \times (1 + 0,5)^2 - \frac{3}{4} \right] : (5 \times 1,25) - 0,04 \right\} \quad \left[\frac{21}{25} \right]$$

$$\boxed{4} \quad \frac{(0,\bar{1}-0,2\bar{7}) : (0,8\bar{3} + \frac{7}{9})}{0,\bar{27} + 1,6 + 0,\bar{39}} \quad [3]$$

$$\boxed{5} \quad \frac{(0,\bar{1} + 0,\bar{2} + 0,\bar{3}) : 1,2 + 0,\bar{4}}{2,\bar{3} + 1} \quad \left[\frac{3}{10} \right]$$

$$\boxed{6} \quad \frac{5,\bar{5} - 4,\bar{4} + 2,0\bar{2} - 2,\bar{3}}{7,\bar{8} - 6,0\bar{6} + 5,\bar{3} - 6,\bar{3}} - \frac{71}{111} \quad \left[\frac{1}{3} \right]$$

$$\boxed{7} \quad \left[\left(\frac{2}{3} - 1 \right)^2 - \left(2 - \frac{16}{9} \right) \right] \cdot \left(3 - \frac{7}{2} \right) + \left(1 - \frac{2}{3} \right)^2 \cdot (-3)^2 \quad \left[\frac{19}{18} \right]$$

$$\boxed{8} \quad \left[\left(-\frac{1}{2} \right)^5 : \left(-\frac{1}{2} \right)^4 - \frac{1}{2} \right]^3 : \left[\left(1 + \frac{1}{2} \right) \cdot \left(1 - \frac{1}{2} \right) \right]^2 \quad \left[-\frac{16}{9} \right]$$

$$\boxed{9} \quad \left(\frac{2}{3} - \frac{5}{12} \right) + \left[\left(-\frac{3}{10} - \frac{1}{5} \right)^2 + \left(-\frac{5}{24} - \frac{1}{8} \right)^2 - \left(\frac{5}{18} - \frac{1}{4} \right) \right]^3 : \left(-\frac{3}{5} - \frac{1}{15} \right)^2 \quad \left[\frac{1}{3} \right]$$

$$\boxed{10} \quad \left[\left(2 - \frac{1}{8} - \frac{3}{4} \right) - \left(1 - \frac{13}{16} \right) \right] : \left(-\frac{3}{8} - \frac{1}{6} - \frac{1}{2} \right) - \left(-3 + \frac{7}{3} \right)^2 : \left(-2 + \frac{2}{3} \right)^2 - \frac{1}{10} \quad \left[-\frac{5}{4} \right]$$

$$\boxed{11} \quad \left(-\frac{3}{4} + \frac{1}{2} \right)^2 : \left(+\frac{5}{4} - 2 \right)^2 + \left(\frac{5}{4} - 1 \right)^2 \cdot \left(\frac{1}{3} + 5 \right) - \left(-\frac{1}{2} \right) \cdot \left(-2 + \frac{4}{3} \right)^2 - 1 \quad \left[-\frac{1}{3} \right]$$

$$\boxed{12} \quad \left(2 - \frac{9}{5} \right) + \left[\left(\frac{4}{5} - \frac{3}{10} \right)^3 \cdot \left(\frac{27}{20} : \frac{1}{4} - 5 \right)^3 + \left(-1 + \frac{4}{5} \right)^2 \right] : \left(-2 + \frac{8}{5} \right)^2 + \frac{1}{3} \quad \left[\frac{5}{6} \right]$$

$$\boxed{13} \quad \left[\left(+\frac{1}{2} \right)^6 : \left(+\frac{1}{2} \right)^3 - \left(-\frac{1}{6} \right)^3 : \left(-\frac{1}{6} \right) + \left(\frac{1}{2} \right)^3 \cdot \frac{1}{2} : \left(-\frac{1}{2} \right)^2 \right] : \left(-1 + \frac{4}{9} \right)^2 \quad \left[\frac{9}{8} \right]$$

$$\boxed{14} \quad \left(5 - \frac{17}{4} \right) + \left[\left(-\frac{11}{12} + \frac{1}{2} \right)^2 \cdot \left(2 + \frac{2}{5} \right) - \left(-\frac{1}{3} + \frac{1}{5} \right)^2 \cdot \left(\frac{3}{4} + 3 \right) \right] : \left(-1 + \frac{12}{5} \right) \quad [1]$$

$$\boxed{15} \quad \frac{\left(-\frac{3}{4} \right)^4 : \left(-\frac{3}{4} \right)^2 + \frac{3}{2} \cdot \left(1 + \frac{1}{2} \right)^2 \cdot \left(+\frac{3}{2} \right)^0}{\left(-\frac{1}{2} \right)^9 : \left(-\frac{1}{2} \right)^5 + \frac{1}{8} \cdot \left(\frac{1}{8} \right)^0} \quad [21]$$

$$\boxed{16} \quad \left(-\frac{3}{4} \right)^{-3} \cdot (-0,75)^2 \cdot \left(-\frac{3}{4} \right)^8 \cdot \left(+\frac{3}{4} \right)^{-6} \quad \left[-\frac{3}{4} \right]$$

$$\boxed{17} \quad \left(-\frac{4}{5} \right)^{-2} \cdot \left(-\frac{4}{5} \right)^{-4} : \left(-1 + \frac{1}{5} \right)^{-8} : \left(+\frac{4}{5} \right)^2 \quad [1]$$

$$\boxed{18} \quad \left[\left(-\frac{1}{2} \right)^{-2} \right]^{-3} : \left(-\frac{1}{2} \right)^4 \cdot (-2)^{-2} \quad \left[\left(-\frac{1}{2} \right)^4 \right]$$

$$\boxed{19} \quad \{ [(-3)^{-3}]^2 : (-3)^{-3} \}^3 : \left(-\frac{1}{3} \right)^{-5} \quad [(-3)^{-4}]$$

$$\boxed{20} \quad \left[\left(-\frac{8}{5} \right)^{-2} \cdot \left(+\frac{5}{4} \right)^{-2} \right]^3 : (-2)^{-7} \quad [-2]$$

$$\boxed{21} \quad \left[\left(-\frac{1}{4} \right)^{-5} - (0,25)^8 \cdot \left(-1 + \frac{3}{4} \right)^{-3} \right]^{-8} \quad [1]$$

$$\boxed{22} \quad \left[(1,6)^2 \cdot \left(2 - \frac{1}{3} \right)^{-5} \cdot \left(-\frac{3}{5} \right)^{-3} \right]^{-4} \quad [1]$$

$$\boxed{23} \quad 1 + \left\{ \left[\left(-\frac{1}{2} \right)^{-2} + \left(-\frac{1}{3} \right)^{-3} - \left(\frac{12}{15} \right)^0 \right] \cdot (-5)^{-2} - \frac{1}{25} \right\}^{-9} \quad [0]$$

$$\boxed{24} \quad \left\{ [(-2)^3]^7 \cdot [(+5)^{-2}]^7 \cdot \left[\left(-\frac{1}{5} \right)^{-3} \right]^7 \cdot (24)^{-7} \right\} : \left(\frac{3}{10} \right)^{-7} \cdot \left(\frac{1}{2} \right)^{-1} \quad \left[\left(\frac{1}{2} \right)^6 \right]$$

$$\boxed{25} \quad (-5)^{-4} \cdot \left\{ [(-45)^6]^{-5} : [(+9^5)]^{-6} \right\}^{-3} : \left\{ 20^{-3} : [(-2)^2]^{-3} \cdot 5^{-5} \right\}^{-10} \quad [(-5)^6]$$

$$\boxed{26} \quad \frac{13}{4} - \left\{ \left[\left(-\frac{2}{3} \right)^{-2} \cdot \left(\frac{3}{2} \right)^2 \right]^3 : \left(-\frac{2}{3} \right)^{-12} + \left[\left(+\frac{3}{2} \right)^4 \cdot \left(-\frac{2}{3} \right)^{-2} \right]^2 : \left(-\frac{2}{3} \right)^{-10} \right\} \quad [0]$$

$$\boxed{27} \quad 1 - \left[(+2)^{-2} \cdot (-2)^2 \cdot \left(-\frac{1}{6} \right) + (-2)^{-2} \cdot (+2)^2 \cdot \left(-\frac{1}{3} \right)^2 - (-6)^{-2} \cdot \left(-\frac{3}{5} \right)^{-1} \right] : (-3)^{-3} \quad \left[\frac{3}{4} \right]$$

$$\boxed{28} \quad \frac{3}{5} + \left[(-2)^3 \cdot (-2)^{-4} + \left(-\frac{2}{3} \right)^2 \cdot \left(-\frac{2}{3} \right)^{-3} - \left(\frac{1}{6} \right)^2 \cdot \left(-\frac{5}{3} \right)^{-2} \right] : \left(1 - \frac{47}{67} \right)^{-1} \quad [0]$$

$$\boxed{29} \quad 11 + \left\{ \left(-\frac{2}{3} \right)^{-2} \cdot \left[(-1)^{-9} + \left(-\frac{1}{2} \right)^{-2} \right]^{-1} \right\}^{-1} : \left(-\frac{1}{2} \right)^{-2} + 2^{-1} + 6^{-1} \quad [12]$$

$$\boxed{30} \quad \frac{1}{30} \cdot \left\{ \left[\left(-\frac{4}{5} \right)^{-2} \cdot \left(-\frac{1}{2} \right)^{-3} + \left(-\frac{1}{3} \right)^{-2} : (+2)^{-1} \right]^5 : \left(+\frac{2}{11} \right)^{-3} - (-2)^{-2} \right\} \quad [1]$$

$$\boxed{31} \quad 3 \cdot \left\{ \left[\left(3 + \frac{2}{3} \right)^2 \cdot \left(\frac{1}{6} + \frac{2}{3} - \frac{5}{4} \right)^2 \right] : \left[\left(1 - \frac{4}{3} \right)^2 \cdot \left(\frac{3}{4} + \frac{1}{6} \right)^2 \right] - \left(1 + \frac{2}{3} \right)^2 : \left(1 - \frac{2}{3} \right)^2 \right\} \quad [0]$$

$$\boxed{32} \quad 2 + \left\{ \left[\left(-\frac{12}{35} \right)^6 : \left(+\frac{18}{7} \right)^6 \right]^2 \cdot \left(2 + \frac{1}{2} \right)^{12} \right\} : \left(-1 + \frac{2}{3} \right)^{10} + \left[\left(-\frac{1}{6} \right)^4 : \left(\frac{1}{2} \right)^4 \right] : \left(\frac{1}{3} \right)^4 \quad \left[\frac{28}{9} \right]$$

$$\boxed{33} \quad \left(-\frac{9}{8} \right)^{-2} + \left[\left(\frac{1}{3} - 1 \right) : \left(2 - \frac{1}{2} \right) \right]^2 + \left[\left(-1 + \frac{4}{5} \right)^2 \cdot \left(-\frac{5}{3} \right)^2 \right]^2 - [(-4)^2 - 15]^{20} \quad [0]$$

$$\boxed{34} \quad \left\{ \left[\left(-\frac{3}{4} \right)^2 - \left(\frac{1}{2} \right)^{-1} \cdot \left(-\frac{3}{4} \right) \cdot \left(-\frac{1}{2} \right) + \left(-\frac{1}{2} \right)^2 \right] : \left(-\frac{3}{4} + \frac{1}{2} \right) + \left(1 - \frac{1}{2} \right)^2 \right\}^{-1} \quad \text{[non ha significato]}$$

Scrivere i seguenti numeri in notazione scientifica e indicarne l'ordine di grandezza:

- | | | |
|----------|--------------------------------|------------------------------------|
| 1 | 52,4 = o.d.g. : | 467 = o.d.g. : |
| 2 | 0,30 = o.d.g. : | 50000 = o.d.g. : |
| 3 | 0,7 = o.d.g. : | 0,0003 = o.d.g. : |
| 4 | 1000000 = o.d.g. : | 0,0042 = o.d.g. : |
| 5 | 4472 = o.d.g. : | 0,000000374 = o.d.g. : |

Calcolare il MCD delle seguenti coppie di numeri applicando l'algoritmo di Euclide ([trovi aiuto qui](#))

- | | | | |
|---|---------------|-------------|-----------|
| 1 | a) 630, 420 | b) 12, 18 | c) 65, 26 |
| 2 | a) 1350, 4950 | b) 108, 132 | c) 40, 55 |
| 3 | a) 3168, 3024 | b) 136, 153 | c) 60, 27 |