

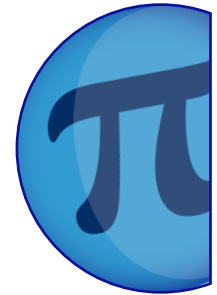


What Does the Internet Weigh?

NAME:

CLASS:

DATE:



Basic

1) Write the following numbers in scientific notation:

- a) 9650 b) 8723 c) 60 d) 43,250,000
- e) 65,342 f) 273

2) Write the following numbers in scientific notation:

- a) 0.04 b) 0.003 c) 0.000876 d) 0.0652
- e) 0.0000268 f) 0.00001

3) Write the following numbers in full:

- a) 2.7×10^3 b) 9.013×10^2 c) 3.812×10^6 d) 1.2×10^8
- e) 6.63×10^4 f) 7.91×10^5

4) Write the following numbers in full:

- a) 2×10^{-2} b) 2.8×10^{-2} c) 4.3×10^{-6} d) 9.05×10^{-4}
- e) 8.002×10^{-3} f) 9.4×10^{-2}

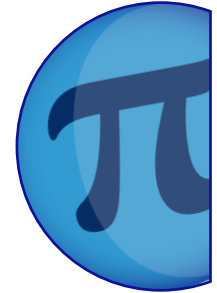


What Does the Internet Weigh?

NAME:

CLASS:

DATE:



Core

1) Write the following numbers in scientific notation:

- a) 9750 b) 9223 c) 80 d) 0.0234
- e) 0.0000932 f) 0.00006

2) Write the following numbers in full:

- a) 4.3×10^3 b) 8.013×10^2 c) 5.832×10^6 d) 8.06×10^{-4}
- e) 7.003×10^{-3} f) 2.5×10^{-2}

3) Calculate the following, giving your answers in scientific notation:

- a) $5 \times (4.26 \times 10^5)$ b) $1.4 \times (7.5 \times 10^4)$
- c) $3 \div (1.27 \times 10^4)$ d) $5.9 \div (8.2 \times 10^{-3})$

4) A carbon atom weighs 2.03×10^{-23} grams. What do 1000 carbon atoms weigh?

5) There are 3.156×10^7 seconds in one solar year. How many seconds are there in five solar years?

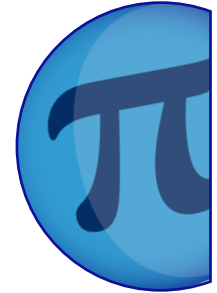


What Does the Internet Weigh?

NAME:

CLASS:

DATE:



Advanced

1) Write the following numbers in standard form:

a) 52,674

b) 1,523,800

c) 0.0582

d) 0.00723

2) Calculate the following:

a) $(8.4 \times 10^{-1}) \times (2.3 \times 10^4)$

b) $(4.723 \times 10^2) \times (5.64 \times 10^{-4})$

c) $(1.754 \times 10^2) \div (6.34 \times 10^3)$

d) $(7.52 \times 10^5) \div (8.62 \times 10^{-1})$

3) Calculate the following:

a) $4.72 \times 10^3 + 3.648 \times 10^4$

b) $13.26 \times 10^{-3} - 1.13 \times 10^{-2}$



What Does the Internet Weigh?

ANSWERS

Basic

- | | | |
|--|---|---|
| 1) a) 9.65×10^3
d) 4.324×10^7 | b) 8.723×10^3
e) 6.5342×10^4 | c) 6×10^1
f) 2.73×10^2 |
| 2) a) 4.0×10^{-2}
d) 6.52×10^{-2} | b) 3.0×10^{-3}
e) 2.68×10^{-5} | c) 8.76×10^{-4}
f) 1.0×10^{-5} |
| 3) a) 2700
d) 120,000,000 | b) 901.3
e) 66,300 | c) 3,812,000
f) 791,000 |
| 4) a) 0.02
d) 0.000905 | b) 0.028
e) 0.008002 | c) 0.0000043
f) 0.094 |

Core

- | | | |
|--|--|---|
| 1) a) 9.75×10^3
d) 2.34×10^{-2} | b) 9.223×10^3
e) 9.32×10^{-5} | c) 8×10^1
f) 6×10^{-5} |
| 2) a) 4300
d) 0.000806 | b) 801.3
e) 0.007003 | c) 5,832,000
f) 0.025 |
| 3) a) 2.13×10^6
c) 2.36×10^{-4} | b) 1.05×10^5
d) 7.195×10^2 | |
| 4) 2.03×10^{-20} | 5) 1.578×10^8 seconds | |

Advanced

- | | |
|--|---|
| 1) a) 5.2674×10^4
c) 5.82×10^{-2} | b) 1.5238×10^6
d) 7.23×10^{-3} |
| 2) a) 1.932×10^4
c) 2.767×10^{-2} | b) 2.6638×10^{-1}
d) 8.7239×10^5 |
| 3) a) 4.12×10^4 | b) 1.96×10^{-3} |