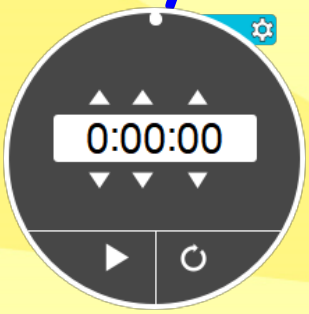
Section 2.1 Open book assignment....

30 minutes to complete both sheets

you can use your scribbler



October 5

Section 2.2
Powers of Ten and Zero Exponents

Use 3 as your base

Exponent	Power	Repeated Multiplication	Standard Form
4	3^4	$3 \times 3 \times 3 \times 3$	81
3	3^3	$3 \times 3 \times 3$	27
2	3^2	3×3	9
1	3^1	3	3
0	3^0		1

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Zero Exponent Law

A power with an integer (positive/negative) base, other than 0, and an exponent of 0 is equal to 1

Ex.

a) $52^0 = 1$

b) $628^0 = 1$

c) $10^0 = 1$

d) $(-4)^0 = 1$

e) $-(2)^0$
-1

f) -4^0
-1

Try this

Evaluate each expression

a) 5^0 1

b) $-(5)^0$ -1

c) $(-5)^0$ 1

d) -5^0 -1

Number in Words	Standard Form	Power
One billion	1 000 000 000	10^9
One hundred million	100 000 000	10^8
Ten million	10 000 000	10^7
One million	1 000 000	10^6
One hundred thousand	100 000	10^5
Ten thousand	10 000	10^4
One thousand	1 000	10^3
One hundred	100	10^2
Ten	10	10^1
One	1	10^0

10×10×10×10×10×10×10

three thousand two hundredsixty two

standard form: 3 262

Expanded form: $3000 + 200 + 60 + 2$

$\downarrow$

$3 \times 1000 + 2 \times 100 + 6 \times 10 + 2 \times 1$

Power of 10: $3 \times 10^3 + 2 \times 10^2 + 6 \times 10^1 + 2 \times 10^0$

When the base of a power is 10 the exponent equals the number of zeros [$100\,000 = 10^5$]