Warm Up

Work on this with your group:

James currently has an 88% average after taking 4 math assessments.   352 total points
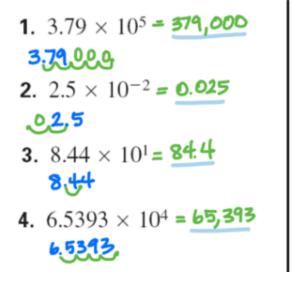
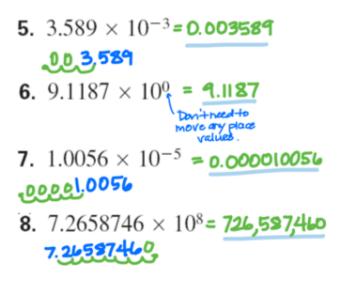There are 2 more assessments before the end of the term.

If she wants a 90% average, list two possible scores she can get on the next two assessments.

$90 \cdot 6 = 540$ Total points on 6 tests needed to have a 90 average.

540   Total needed
352   Amt. from 4 tests
_____
188   points needed

Scores

94, 94

100, 88

98, 90

96, 92

89, 99

93, 95

91, 97

Homework Questions?

Rewrite in decimal form.

1. $3.79 \times 10^5 = 379{,}000$

    3.79000

2. $2.5 \times 10^{-2} = 0.025$

    02.5

3. $8.44 \times 10^1 = 84.4$

    8.44

4. $6.5393 \times 10^4 = 65{,}393$

    6.5393

5. $3.589 \times 10^{-3} = 0.003589$

    003.589

6. $9.1187 \times 10^0 = 9.1187$

    Don't need to move any place values.

7. $1.0056 \times 10^{-5} = 0.000010056$

    00001.0056

8. $7.2658746 \times 10^8 = 726{,}587{,}460$

    7.26587460

Rewrite in scientific notation.

$7{,}960{,}000{,}000 = 7.96 \times 10^9$

$0.007485 = 7.485 \times 10^{-3}$

$45.668 = 4.5668 \times 10^1$

$998{,}653 = 9.98653 \times 10^2$

$0.0000056388 = 5.6388 \times 10^{-6}$

$63{,}000{,}000 = 6.3 \times 10^7$

$0.0602 = 6.02 \times 10^{-2}$

$22{,}078{,}600 = 2.20786 \times 10^7$

$0.000070005 = 7.0005 \times 10^{-5}$

$64.3 = 6.43 \times 10^1$

What Is Special About a Radioactive Cat?

Choose the correct answer for each exercise and circle the letter pair next to it. Write the uppercase letter in the box containing the lowercase letter.

In Exercises 1-2, choose the number that is written in scientific notation.

1. (r·Y) 34.5×10^5 (m·E) 3.45×10^6 (y·P) 0.345×10^7

2. (b·G) 0.77×10^{-3} (i·R) $7.7 + 10^{-4}$ (s·L) 7.7×10^{-4}

In Exercises 3-6, find the value of n.

3. $94,000,000 = 9.4 \times 10^n$ (n·O) 8   (e·A) 7

4. $555,500,000,000 = 5.555 \times 10^n$ (i·I) 11   (k·C) 10

5. $0.00006 = 6 \times 10^n$ (w·S) −4   (j·G) −11

6. $0.0000000000375 = 3.75 \times 10^n$ (f·U) −12   (y·E) −5

In Exercises 7-12, write the number in decimal form.

7. 3.8×10^5 (r·A) 38,000,000   (p·R) 0.00038

8. 3.8×10^{-5} (d·L) 3,800,000   (w·I) 380,000

9. 3.80×10^7 (b·T) 0.000038   (o·D) 38,000

10. 6.25×10^4 (a·A) 0.000000625   (n·E) 62,500

11. 6.25×10^{-3} (v·M) 625,000   (k·H) 0.0000000625

12. 6.25×10^{-8} (z·S) 0.00625   (h·L) 0.00062

In Exercises 13-18, write the number in scientific notation.

13. 72,000   (q·F) 7.2×10^{10} (q·W) 7.2×10^5

14. 7,200,000,000,000   (f·S) 7.2×10^{12} (o·N) 7.2×10^{-7}

15. 0.00000072   (a·I) 7.2×10^4 (t·D) 7.2×10^{-6}

16. 41,900,000   (v·L) 4.19×10^{-3} (x·T) 4.19×10^{-5}

17. 0.00419   (l·R) 4.19×10^{-10} (d·H) 4.19×10^7

18. 0.0000000000419   (c·S) 4.19×10^6 (h·E) 4.19×10^{-11}

In Exercises 19-22, write the number in scientific notation.

19. 22.2×10^3 (p·O) 2.22×10^5 (l·T) 2.22×10^7

20. 0.222×10^8 (t·F) 2.22×10^4 (c·S) 2.22×10^9

21. 0.54×10^{-4} (g·L) 5.4×10^{-6} (u·P) 5.4×10^{-16}

22. 54×10^{-15} (q·H) 5.4×10^{-14} (x·V) 5.4×10^{-5}

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a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z

Homework

Finish classwork