



New York State Testing Program

Mathematics Test

Grade **8**

2009 Scoring Guide Part 2

36 What is $28a^{11}b^7$ divided by $4a^3b$?

Show your work.

Answer _____

QUESTION 36

STRAND 2: ALGEBRA

Complete and Correct Response:

- $28a^{11}b^7 \div 4a^3b$

$$7a^{(11-3)}b^{(7-1)}$$

$$7a^8b^6$$

OR other valid process

AND

- $7a^8b^6$

Score Points:

Apply 2-point holistic rubric.

36 What is $28a^{11}b^7$ divided by $4a^3b$?

Show your work.

$$\begin{array}{r} 7 \\ 4 \overline{) 28} \\ \underline{-28} \\ 0 \end{array} \quad \begin{array}{r} 28 \cdot a \cdot b \cdot b \cdot b \cdot b \cdot b \cdot b \\ \hline 4 \cdot a \cdot a \cdot a \cdot b \\ 7a^8b^6 \end{array}$$

Answer 7a⁸b⁶

This response is complete and correct.

Score Point 2

36 What is $28a^{11}b^7$ divided by $4a^3b$?

Show your work.

$$\frac{28a^{11}b^7}{4a^3b}$$

$$7a^8b^6$$

Answer 7a⁸b⁶

This response is complete and correct. A sound mathematical procedure is demonstrated, and the correct answer is written on the answer line. A final simple subtraction procedure, containing and resulting in whole numbers only, can be omitted if the difference is 10 or less.

Score Point 2

36 What is $28a^{11}b^7$ divided by $4a^3b$?

Show your work.

Answer $7a^8b^6$

This response is only partially correct. The correct answer is provided; however, no work is shown.

Score Point 1

36 What is $28a^{11}b^7$ divided by $4a^3b$?

Show your work.

$$\frac{28a^{11}b^7}{4a^3b}$$

Answer $4a^8b^6$

This response is only partially correct. A sound mathematical procedure is demonstrated; however, a calculation error results in an incorrect answer.

Score Point 1

36 What is $28a^{11}b^7$ divided by $4a^3b$?

Show your work.

$$\begin{array}{r} 7^1 \\ 4a^3 \overline{) 28a^{11}b^7} \\ \underline{0} \\ 28a^8b^7 \\ \underline{0} \\ 28a^8b^7 \\ \underline{0} \\ 0 \end{array}$$

Answer 7¹

This response is incorrect. Although the correct initial division procedure is demonstrated, more than just the correct division of the coefficients is needed. One of the two exponential values must also be correct to demonstrate a partial understanding of the task.

Score Point 0



New York State Testing Program

Mathematics Test

Grade **8**

2009 Practice Test

36 What is $28a^4b^7$ divided by $4a^3b$?

Show your work.

$$7a^8b^6$$

Answer $7a^8b^6$

36 What is $28a^{11}b^7$ divided by $4a^3b$?

Show your work.

Answer $7a^8b^6$

36 What is $28a^{11}b^7$ divided by $4a^3b$?

Show your work.

$$\frac{28a^{11}b^7}{4a^3b}$$

Answer $7a^8b^6$

36 What is $28a^7b^7$ divided by $4a^3b$?

Show your work.

$$\frac{28a^7b^7}{4a^3b} = 7a^4b^6$$

$$\frac{28}{4} \cdot \frac{a^7}{a^3} \cdot \frac{b^7}{b} = b^6$$

Answer $7a^4b^6$

36 What is $28a^{11}b^7$ divided by $4a^3b$?

Show your work.

$$\begin{array}{l} a^{11} \div a^3 = 8 \quad b^7 \div b = b^6 \\ \frac{28a^{11}b^7}{4a^3b} = \boxed{7a^8b^6} \end{array}$$

Answer 7a⁸b⁶

8th GRADE MATHEMATICS

Name: _____

PRACTICE SET ANSWER KEY

PS 1	(0-2)	1
PS 2	(0-2)	1
PS 3	(0-2)	0
PS 4	(0-2)	1
PS 5	(0-2)	2
PS 6	(0-2)	2
PS 7	(0-2)	0
PS 8	(0-2)	2
PS 9	(0-2)	1
PS 10	(0-2)	2
PS 11	(0-2)	2
PS 12	(0-2)	0
PS 13	(0-2)	1
PS 14	(0-2)	1
PS 15	(0-2)	2
PS 16	(0-2)	2
PS 17	(0-2)	1
PS 18	(0-2)	0
PS 19	(0-2)	2
PS 20	(0-2)	1
PS 21	(0-3)	2
PS 22	(0-3)	3
PS 23	(0-3)	0
PS 24	(0-3)	1
PS 25	(0-3)	2

PS 26	(0-3)	3
PS 27	(0-3)	1
PS 28	(0-3)	0
PS 29	(0-3)	1
PS 30	(0-3)	2
PS 31	(0-2)	1
PS 32	(0-2)	0
PS 33	(0-2)	2
PS 34	(0-2)	2
PS 35	(0-2)	1
PS 36	(0-2)	1
PS 37	(0-2)	2
PS 38	(0-2)	1
PS 39	(0-2)	1
PS 40	(0-2)	2
PS 41	(0-2)	1
PS 42	(0-2)	0
PS 43	(0-2)	2
PS 44	(0-2)	2
PS 45	(0-2)	1
PS 46	(0-2)	0
PS 47	(0-2)	2
PS 48	(0-2)	1
PS 49	(0-2)	2
PS 50	(0-2)	1

