

Released Items
Variable key & construct map

Released items_2008

Item #	Description	Answer	Construct	Elementary or Middle School
	Elementary Content Knowledge (CK) Items			
1a	0 is even	1	NCOP CCK	EL
1b	0 not a number	2	NCOP CCK	EL
1c	8 is 008	1	NCOP CCK	EL
2	371 prime?	3	NCOP CCK	EL
3a	35 x 25 Method A	1	NCOP SCK	EL
3b	35 x 25 Method B	1	NCOP SCK	EL
3c	35 x 25 Method C	1	NCOP SCK	EL
4	Divisibility rule for 4	2	NCOP SCK	EL
5	5/8 of total (2) pizza	3	NCOP SCK	EL
6	Model 1 $1\frac{1}{2}$ x $2\frac{2}{3}$	3	NCOP SCK	EL
7a	Divide 1 $1\frac{1}{4}$ pies between 2 families	2	NCOP SCK	EL
7b	Have \$1.25 and may double	2	NCOP SCK	EL
7c	1 $1\frac{1}{4}$ cups butter, # $1\frac{1}{2}$ cup sticks?	1	NCOP SCK	EL
8	983 x 6 alternative method	3	NCOP SCK	EL
9	Odd/even method	4	NCOP SCK	EL
	Knowledge of Content and Students (KCS) Items			
10a	8 x 8 by breaking up	1	NCOP KCS	EL
10b	8x8 by doing 10x10 & subtracting	2	NCOP KCS	EL
10c	8x8 by 8x10 then subtracting 8x2	1	NCOP KCS	EL
10d	8x8 by 8x5 and then counting on	1	NCOP KCS	EL
11	Ignoring decimal point	2	NCOP KCS	EL
12	Show 23 with checkers	3	NCOP KCS	EL
13	Mrs Jackson, always carry 1	1	NCOP KCS	EL
14a	100s chart—average vert=horiz	1	NCOP KCS	EL
14b	Both add to 96	2	NCOP KCS	EL
14c	3 x middle	1	NCOP KCS	EL
14d	10 more, 10 less	2	NCOP KCS	EL
15	Jackson borrow across 0	1	NCOP KCS	EL

16	Compare $\frac{3}{4}$ and $\frac{5}{6}$	1	NCOP KCS	EL
17a	Abundant error: Adding incorrectly	2	NCOP KCS	EL
17b	Abundant error: Reversing abundant	1	NCOP KCS	EL
17c	Abundant error: Confusing factors	1	NCOP KCS	EL
17d	Abundant error: Square numbers	2	NCOP KCS	EL
18	Symmetry in polygons	4	GEO KCS	MS
19	Proportional reasoning—challenging	2	PR KCS	MS
	Knowledge of Content and Teaching (KCT) Items			
20	Place value to young learners	4	NCOP KCT	EL
21	Compare/order fractions, choose examples	3	NCOP KCT	EL
22	How many 4s in 3?	2	NCOP KCT	EL
23	Simpler version, same problem	2	NCOP KCT	EL
24	Poster definition for triangle	2	GEO KCT	MS
25	Unknown angle in triangle	2	GEO KCT	MS
26	Deductive reasoning	2	GEO KCT	MS
27	Tessellating plane with quadrilaterals	2	GEO KCT	MS
28	Converting fractions—choose examples	?	RAT KCT	MS
	Middle School Content Knowledge Items			
29a	2 negatives make positive-addition	3	NCOP CK	MS
29b	2 negatives make positive- subtract	1	NCOP CK	MS
29c	2 negatives make positive- multiply	2	NCOP CK	MS
29d	2 negatives make positive- division	2	NCOP CK	MS
30a	Same ratio/different ratio=heights	1	PR CK	MS
30b	Same ratio/different ratio=temps	2	PR CK	MS
30c	Same ratio/different ratio=speed	1	PR CK	MS
30d	Same ratio/different ratio=bank accts	2	PR CK	MS
31a	Distributive property- add fractions	1	PFA SCK	MS
31b	Distributive property- solve for x	2	PFA SCK	MS
31c	Distributive property-combining like terms	1	PFA SCK	MS
31d	Distributive property-adding $34 + 25$	1	PFA SCK	MS
32	$a-(b+c)$ equivalent to $a-b-c$	5	PFA SCK	MS

33a	Area- $a^2 + 5$	2	PFA SCK	MS
33b	Area- $(a+5)^2$	2	PFA SCK	MS
33c	Area- $a^2 + 5a$	1	PFA SCK	MS
33d	Area- $(a+5)a$	1	PFA SCK	MS
33e	Area- $2a+5$	2	PFA SCK	MS
33f	Area- $4a + 10$	2	PFA SCK	MS
34	Explaining reversing inequalities	4	PFA SCK	MS
35	0.3 x 2 very carefully	2	RAT SCK	MS

* Note: SCK and CCK distinctions are guesses based on theory.

NCOP-Number concepts and operations

PFA-Patterns, functions, and algebra

GEO-Geometry

RAT-Rational numbers

PR-Proportional reasoning

CCK-Common content knowledge

SCK- Specialized content knowledge

KCS – Knowledge of content and students

KCT – Knowledge of content and teaching