

## Responses to the Candy Jar Task

From NCTM's (2014) *Principles to Actions: Ensuring Mathematical Success for All*

### Solution A

Student explanation: "You had to multiply the five Jolly Ranchers by 20 to get 100, so you'd also have to multiply the 13 jawbreakers by 20, getting 260."

( $\times 20$ )

5 JR  $\rightarrow$  100 JR

13 JB  $\rightarrow$  260 JB

( $\times 20$ )

### Solution B

Student explanation: "I started with 5 Jolly Ranchers (JR) and 13 jawbreakers (JB), and I just kept adding on 5 JR and 13 JB every time until I got to 100 JR. Then I saw that I had 260 JB."

JR	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
JB	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195	208	221	234	247	260

### Solution C

Student explanation: "100 Jolly Ranchers is 95 more than the 5 I started with. So I will need 95 more jawbreakers than the 13 I started with."

5 JR + 95 JR = 100 JR

13 JB + 95 JB = 108 JB

### Solution D

Student explanation: "Since the ratio is 5 Jolly Ranchers (JR) for 13 jawbreakers (JB), you could give each JR that you have 2 JB. That would use up 10 of them, and then you still have 3 JB that have to be shared. So to distribute the 3 JB to the 5 JR, that would be  $3 \div 5 = 0.6$  of a JB, so putting that together would give the ratio of 1 JR to 2.6 JB. So then you just multiply 100 by 2.6."

( $\times 100$ )

1 JR  $\rightarrow$  100 JR

2.6 JB  $\rightarrow$  260 JB

( $\times 100$ )