

**KEY**  
**Dual Dig Level I**  
**March 10, 2012**

1.

65 students

2.

$\frac{7}{48}$

3.

0

4.

0, 2, or -1

5.

$(12\pi + 4)$  yards

6.

$1/2$

7.

2520

8.

$\{-4, 4\}$

9.

$\frac{49}{5}$  in, or  $9\frac{4}{5}$  in, or 9.8 in

10.

$\{x \in \mathbb{R} \mid x \neq 2\}$ , or  $(-\infty, 2) \cup (2, \infty)$

**KEY**

11.

$y = 3x^2 - 2x + 7$

12.

$\frac{12x^{13}y^{16}}{z^{10}}$

13.

$(0, -4), (\sqrt{7}, 3), (-\sqrt{7}, 3)$

14.

30

15.

$\left\{ \pm\sqrt{3}, \pm\frac{\sqrt{14}}{2} \right\}$

16.

$31/32$

17.

$1 - 2a - h$

18.

$\{x \in \mathbb{R} \mid x > \frac{3}{2}, x \neq 3\}$ , or  $(\frac{3}{2}, 3) \cup (3, \infty)$

19.

$y = 2 \pm \frac{3}{2}\sqrt{x^2 - 1}$ , or  $y = \frac{4 \pm 3\sqrt{x^2 - 1}}{2}$

20.

1

Number Right   
- Number Wrong   $\times 0.5 =$    
Score