

**SOL Alignment and Levels of Cognitive Demand  
Grade 6**

**STANDARD 6.16**

The student will

- a) compare and contrast dependent and independent events; and
- b) determine probabilities for dependent and independent events.

From the Essential Knowledge and Skills:

- Determine whether two events are dependent or independent.
- Compare and contrast dependent and independent events.
- Determine the probability of two dependent events.
- Determine the probability of two independent events.

<b>Problem:</b>	<b>Alignment to standard: Yes/no; SOL bullet</b>	<b>Level of cognitive demand: Low/medium/not aligned</b>	<b>Answer and EKS correlation:</b>
1	Yes; b	Low	$\frac{33}{95}$ ; bullet 3
2	No		18; SOL 5.14
3	Yes; a	Low	B; bullet 1
4	Yes; b	Medium	$\frac{1}{8}$ ; bullet 4
5	Yes; a	Medium	Various; bullet 2
6	Yes; b	Low	$\frac{3}{10}$ ; bullet 3
7	No		$\frac{1}{64}$ ; exceeds number of events
8	Yes; b	Low	$\frac{1}{64}$ ; bullet 4