1. Solution: D
Let
\[ G = \text{event that a viewer watched gymnastics} \]
\[ B = \text{event that a viewer watched baseball} \]
\[ S = \text{event that a viewer watched soccer} \]
Then we want to find
\[
\Pr\left( (G \cup B \cup S)^c \right) = 1 - \Pr(G \cup B \cup S)
\]
\[
= 1 - \left[ \Pr(G) + \Pr(B) + \Pr(S) - \Pr(G \cap B) - \Pr(G \cap S) - \Pr(B \cap S) + \Pr(G \cap B \cap S) \right]
\]
\[
= 1 - (0.28 + 0.29 + 0.19 - 0.14 - 0.10 - 0.12 + 0.08) = 1 - 0.48 = 0.52
\]

2. Solution: A
Let \( R = \text{event of referral to a specialist} \)
\( L = \text{event of lab work} \)
We want to find
\[
P[R \cap L] = P[R] + P[L] - P[R \cup L] = P[R] + P[L] - 1 + P[\neg (R \cup L)]
\]
\[
= P[R] + P[L] - 1 + P[\neg R \neg L] = 0.30 + 0.40 - 1 + 0.35 = 0.05
\]

3. Solution: D
First note
\[
P[A \cup B] = P[A] + P[B] - P[A \cap B]
\]
\[
P[A \cup B'] = P[A] + P[B'] - P[A \cap B']
\]
Then add these two equations to get
\[
P[A \cup B] + P[A \cup B'] = 2P[A] + (P[B] + P[B']) - (P[A \cap B] + P[A \cap B'])
\]
\[
0.7 + 0.9 = 2P[A] + 1 - P[(A \cap B) \cup (A \cap B')]\]
\[
1.6 = 2P[A] + 1 - P[A]
\]
\[
P[A] = 0.6
\]