G.SRT.D.11: Law of Cosines 2

1 If, in $\triangle ABC$, $a = 5$, $b = 6$, and $c = 8$, then $\cos A$ is
1) $-\dfrac{1}{20}$ 2) $\dfrac{11}{32}$ 3) $\dfrac{25}{32}$ 4) $\dfrac{53}{80}$

2 In triangle ABC, if $a = 10$, $b = 7$, and $c = 8$, then the value of $\cos C$ is
1) $\dfrac{64}{9}$ 2) $\dfrac{13}{112}$ 3) $\dfrac{23}{32}$ 4) $\dfrac{17}{28}$

3 In $\triangle ABC$, if $a = 4$, $b = 3$, and $c = 3$, then the value of $\cos A$ is
1) $\dfrac{2}{3}$ 2) $\dfrac{1}{9}$ 3) $-\dfrac{1}{9}$ 4) $-\dfrac{2}{3}$

4 In triangle ABC, $a = 2$, $b = 3$, and $c = 4$. What is the value of $\cos C$?
1) $-\dfrac{1}{4}$ 2) $\dfrac{7}{8}$ 3) $-\dfrac{1}{2}$ 4) 16

5 In $\triangle ABC$, $a = 5$, $b = 4$, and $c = 2$. What is the value of $\cos A$?
1) $\dfrac{5}{16}$ 2) $-\dfrac{5}{16}$ 3) $\dfrac{25}{4}$ 4) $-\dfrac{25}{4}$

6 In $\triangle ABC$, if $a = 8$, $b = 5$, and $c = 9$, then $\cos A$ is
1) $\dfrac{7}{15}$ 2) $-\dfrac{7}{15}$ 3) $\dfrac{1}{4}$ 4) $-\dfrac{1}{4}$

7 In $\triangle ABC$, if $a = 6$, $b = 4$, and $c = 9$. The value of $\cos C$ is
1) $\dfrac{61}{72}$ 2) $-\dfrac{29}{48}$ 3) $\dfrac{2}{3}$ 4) $\dfrac{4}{9}$

8 In $\triangle ABC$, if $a = 8$, $b = 2$, and $c = 7$. What is the value of $\cos C$?
1) $-\dfrac{19}{32}$ 2) $-\dfrac{11}{28}$ 3) $\dfrac{109}{112}$ 4) $\dfrac{19}{32}$

9 In $\triangle ABC$, $a = 6$, $b = 7$, and $c = 8$. What is $\cos A$ in simplest fractional form?
1) $\dfrac{3}{16}$ 2) $\dfrac{11}{16}$ 3) $\dfrac{77}{96}$ 4) $\dfrac{51}{112}$

10 The sides of a triangle measure 6, 7, and 9. What is the cosine of the largest angle?
1) $-\dfrac{4}{81}$ 2) 81 3) $\dfrac{4}{84}$ 4) $-\dfrac{1}{81}$

11 In $\triangle ABC$, $a = 3$, $b = 5$, and $c = 7$. What is m$\angle C$?
1) 22 2) 38 3) 60 4) 120

12 In triangle ABC, $a = 5$, $b = 7$, and $c = 8$. The measure of $\angle B$ is
1) 30º 2) 60º 3) 120º 4) 150º

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Answer Section

  1 ANS: 3   REF: 068123siii
  2 ANS: 4   REF: 068431siii
  3 ANS: 2   REF: 088633siii
  4 ANS: 1   REF: 088728siii
  5 ANS: 2   REF: 088930siii
  6 ANS: 1   REF: 089430siii
  7 ANS: 2   REF: 069632siii
  8 ANS: 4   REF: 069828siii
  9 ANS: 2   REF: 080133siii
10 ANS: 3   REF: 069526siii
11 ANS: 4

$$7^2 = 3^2 + 5^2 - 2(3)(5)\cos A$$

$$49 = 34 - 30\cos A$$

$$15 = -30\cos A$$

$$-\frac{1}{2} = \cos A$$

$$120 = A$$

REF: 081017a2
12 ANS: 2   REF: 068723siii