



Dear students,

Below are the solutions to assignment #4.

1.

$98^{\circ}12'55''$, $153^{\circ}26'40''$, $192^{\circ}56'22''$, and $288^{\circ}12'50''$

Bearings	Angles
$S81^{\circ}47'05''E$	$55^{\circ}13'45''$
$S26^{\circ}33'20''E$	$39^{\circ}29'42''$
$S12^{\circ}56'22''W$	$95^{\circ}16'28''$
$N71^{\circ}47'10''W$	$170^{\circ}00'05''$

2.

$N32^{\circ}42'38''E$, $S54^{\circ}02'02''E$, $S22^{\circ}42'56''W$, and $N44^{\circ}35'26''W$

Azimuths	Angles
$32^{\circ}42'38''$	$93^{\circ}15'20''$
$125^{\circ}57'58''$	$76^{\circ}44'58''$
$202^{\circ}42'56''$	$112^{\circ}41'38''$
$315^{\circ}24'34''$	$77^{\circ}18'04''$

3.

$A = 82^{\circ}13'15''$, $B = 106^{\circ}35'18''$, $C = 28^{\circ}45'06''$, $D = 205^{\circ}14'56''$, $E = 117^{\circ}11'25''$

Course	Bearing	Azimuth
<i>AB</i>	Due North	$0^{\circ}00'00''$
<i>BC</i>	$N73^{\circ}24'42''W$	$286^{\circ}35'18''$
<i>CD</i>	$S44^{\circ}39'36''E$	$135^{\circ}20'24''$
<i>DE</i>	$S19^{\circ}24'40''E$	$160^{\circ}35'20''$
<i>EA</i>	$S82^{\circ}13'15''E$	$97^{\circ}46'45''$



4. Azimuth of AB= $207^{\circ} 53' 14''$ (station C is easterly from B).

<u>Course</u>	<u>Azimuths</u>
AB	$207^{\circ} 53' 14''$
BC	$267^{\circ} 53' 14''$
CD	$327^{\circ} 53' 14''$
DE	$27^{\circ} 53' 14''$
EF	$87^{\circ} 53' 14''$
FA	$147^{\circ} 53' 14''$

5.

<u>1875 Magnetic Bearing</u>	<u>1875 Declination</u>	<u>Present Declination</u>	<u>Present Magnetic Bearing</u>
N32°45'E	8°12'W	2°30'E	N22°03'E

6.

Direct: $0^{\circ}00'00''$, $106^{\circ}52'06''$, $191^{\circ}38'43''$, $359^{\circ}59'58''$

Reverse: $0^{\circ}00'00''$, $106^{\circ}52'04''$, $191^{\circ}38'41''$, $0^{\circ}00'00''$

$106^{\circ}52'05''$; $84^{\circ}46'37''$; $168^{\circ}21'17''$; misclosure = $-3''$

Good luck,