Directions:

Using only paper and pencil or pen, trace the following programs and write down the output of each BASIC program. Do not use the Internet or a computer. If you are not sure of what one of the program statements would do, you may ask a partner.

Turn in your work at the end of the class period today.

Program 1: Trace-1.bas

```
100 REM File: Trace-1.bas
110 REM Trace the program to determine its output.
105 REM You may want to keep a table of variable values and line numbers
110 N = 10
115 P = 0
120 I = 2
140 Z = 5
150 X = 2
160 Y = Z MOD X
170 PRINT Z," mod ", X, " = ",Y
910 PRINT "Program terminating."
```

Program 2: Trace-2.bas

```
100 REM File : Trace-2.bas
101 REM Trace the program to determine its output.
102 REM You may want to keep a table of variable values and line numbers
110 N = 10
115 P = 0
120 I = 1
200 REM Top-of-loop
210 IF I > N THEN 900
220 F = 0
710 PRINT "N: ",I
800 I = I + 1
810 GOTO 200
900 REM End-of-Loop
910 PRINT "Program terminating."
```

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Program 3: Trace-3.bas

```
100 REM File : Trace-3.bas
101 REM Trace the program to determine its output.
102 REM You may want to keep a table of variable values and line numbers
110 N = 10
115 P = 0
120 I = 2
200 REM Top-of-loop
210 IF P = N THEN 900
220 F = 0
230 M = I \ 2
250 J = 2
500 IF J > M THEN 700
503    R = I MOD J
510    IF R > 0 THEN 600
511       REM if r = 0 then do this:
520       F = F + 1
600    J = J + 1
620    GOTO 500
700 IF F > 0 THEN 800
701    REM If f = 0 then do this
710    PRINT "P: ",I
720    P = P + 1
800 I = I + 1
810 GOTO 200
900 REM End-of-Loop
910 PRINT "Program terminating."
```