

Monday, October 3

What is the minimum value of the expression $4 \cos 3\theta$?

f. -4 

g. -3


h. -1

j. 3

k. 4

Tuesday, October 4

If $2x + y = 16$, $x + 2z = 14$, and $2y + z = 12$, then what is the arithmetic mean of x , y , and z ?

a. $\frac{14}{3}$ 

b. $\frac{16}{3}$

c. 14

d. 12

e. 4

Wednesday, October 5

In the diagram below, $l \parallel m$. What is the value of y ?

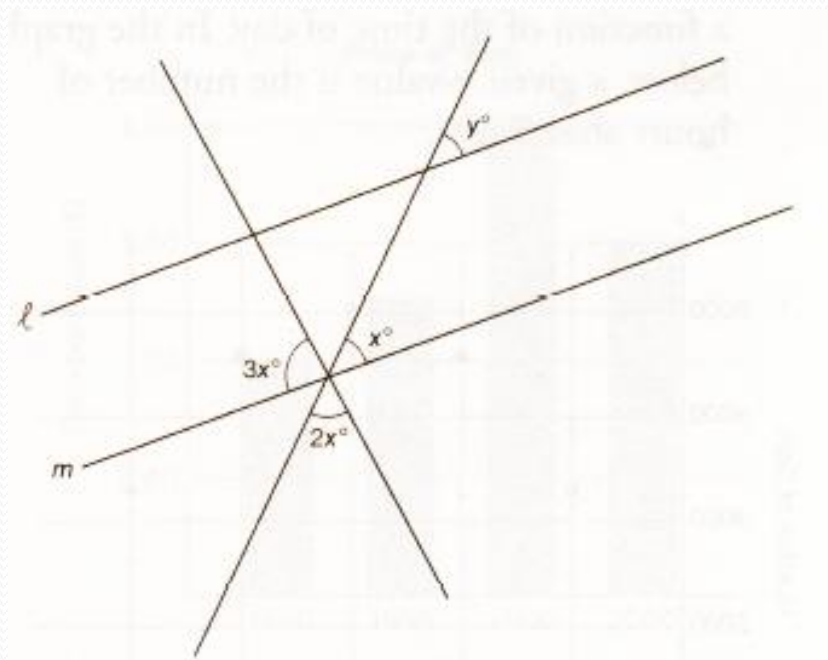
f. It cannot be determined from the given information.

g. 150

h. 60

j. 40

k. 30



Thursday, October 6

John earns 6 percent commission on monthly receipts. Washing machines have a list price of \$600. In one month, when washing machines were selling at a 10 percent discount, John sold 4 washing machines. What was his commission for these sales, to the nearest dollar?

- a. \$384
- b. \$360
- c. \$130
- d. \$120
- e. \$60



Friday, October 7

Consider points A, B, C, and D as shown on line segment \overline{AD} below.

AB, BC, and CD are all positive integer lengths, and the length of \overline{AD} is 18. If the ratio of AB to BC is 3:1, which of the following is *not* a possible length of \overline{CD} ?

f. 2

g. 6

h. 10

j. 14

k. 18

