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## Graphing Using $x$ and $y$ Intercepts

Write an equation, find the intercepts, and graph each.

## Review:

Describe the $y$-intercept $\qquad$

Describe the $x$-intercept: $\qquad$

1) You are working two jobs this summer to buy a bike that costs $\$ 120$. You earn $\$ 8$ an hour delivering newspapers and $\$ 10$ an hour working at the grocery store.
a) State what each variable stands for:
$x$ : $\qquad$
$y$ : $\qquad$
b) Write an equation to represent the situation.
c) Find the intercepts.
$x$-intercept: $\qquad$
$y$-intercept: $\qquad$
d) Graph the equation.

e) Give three possibilities for the number of hours worked at each job in order to buy the bike.
2) You are playing a beanbag toss game. You receive 5 points for the beanbag landing in the red zone and ten point if it lands in the black zone. You need 70 points to win.
a) State what each variable stands for:
$x$ : $\qquad$
$y$ : $\qquad$
b) Write an equation to represent the situation.
c) Find the intercepts.
$x$-intercept: $\qquad$
$y$-intercept: $\qquad$
d) Graph the equation.

e) Give three possibilities for the number of beanbags in each zone in order to reach 70 points.
3) A teacher is buying supplies for an art project. She can buy markers for $\$ 5$ a package and colored pencils for $\$ 4$ a package. She wants to spend $\$ 60$.
a) State what each variable stands for:
$x$ : $\qquad$
$y$ : $\qquad$
b) Write an equation to represent the situation.
c) Find the intercepts.
$x$-intercept: $\qquad$
$y$-intercept: $\qquad$
d) Graph the equation.

e) Give three possibilities for the number of packages or markers and colored pencils she can purchase.
