

## Results of Chapter 3 Test

A	B	C	
100%	88%	78%	66%
100%	88%	78%	58%
98%	86%	78%	56%
98%	86%	76%	54%
98%	84%	74%	50%
94%	82%	72%	44%
94%	82%	70%	34%
92%	82%		30%
90%	80%		16%
90%			

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## Today we learn:

- (1) what a **system of equations** is used for.
- (2) what a **solution** of a system of equations is.
- (3) a method of estimating a solution for a system of equations.

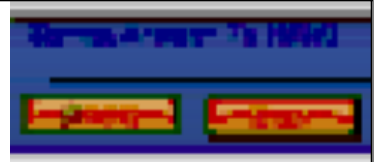
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1

## Photocopier:

Considering electricity, maintenance, toner, paper, each page costs about  $5\text{¢}$ .

Number of copies	Cost in $\text{¢}$
5	?
10	
15	
20	
25	



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2

## Photocopier:

Considering electricity, maintenance, toner, paper, each page costs about  $5\text{¢}$ .

Number of copies	Cost in $\text{¢}$
5	<b>25</b>
10	?
15	
20	
25	



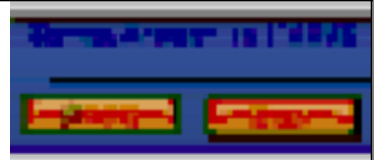
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3

### Photocopier:

Considering electricity, maintenance, toner, paper, each page costs about  $5\text{¢}$ .

Number of copies	Cost in $\text{¢}$
5	25
10	50
15	?
20	
25	



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### Photocopier:

Considering electricity, maintenance, toner, paper, each page costs about  $5\text{¢}$ .

Number of copies	Cost in $\text{¢}$
5	25
10	50
15	75
20	?
25	



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5

### Photocopier:

Considering electricity, maintenance, toner, paper, each page costs about 5¢.



Number of copies	Cost in ¢
5	25
10	50
15	75
20	100
25	?

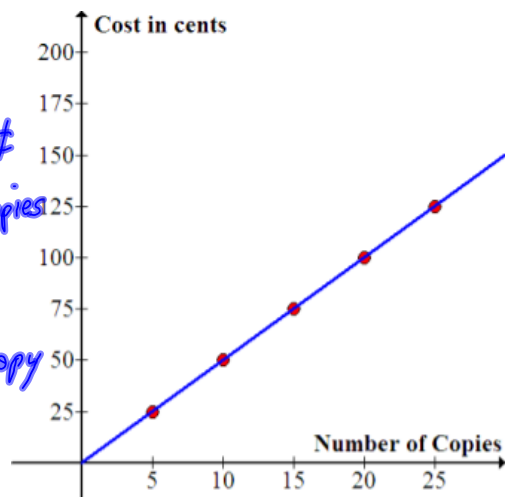
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### Photocopier:

Considering electricity, maintenance, toner, paper, each page costs about 5¢.

<i>x</i> Number of copies	<i>y</i> Cost in ¢
5	25
10	50
15	75
20	100
25	125

$$\begin{aligned}
 m &= \frac{50 - 25 \text{ ¢}}{10 - 5 \text{ copies}} \\
 &= \frac{25 \text{ ¢}}{5 \text{ copies}} \\
 &= 5 \text{ ¢ per copy}
 \end{aligned}$$



Equation?

$$\begin{aligned}
 y - 25 &= 5(x - 5) \\
 y - 25 &= 5x - 25 \\
 y &= 5x
 \end{aligned}$$

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**6 Digital Duplicator:**

Makes a reversed "master" (costs 65¢)  
and then each actual copy costs 3¢.



Number of copies	Cost in ¢
5	?
10	
15	
20	
25	

The cost must include the 65¢ for the master.

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**7 Digital Duplicator:**

Makes a reversed "master" (costs 65¢)  
and then each actual copy costs 3¢.



Number of copies	Cost in ¢
5	80
10	?
15	
20	
25	

The cost must include the 65¢ for the master.

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**8 Digital Duplicator:**

Makes a reversed "master" (costs 65¢)  
and then each actual copy costs 3¢.



Number of copies	Cost in ¢
5	<b>80</b>
10	<b>95</b>
15	<b>?</b>
20	
25	

The cost must include the 65¢ for the master.

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**9 Digital Duplicator:**

Makes a reversed "master" (costs 65¢)  
and then each actual copy costs 3¢.



Number of copies	Cost in ¢
5	<b>80</b>
10	<b>95</b>
15	<b>110</b>
20	<b>?</b>
25	

The cost must include the 65¢ for the master.

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### 10 Digital Duplicator:

Makes a reversed "master" (costs 65¢) and then each actual copy costs 3¢.



Number of copies	Cost in ¢
5	80
10	95
15	110
20	125
25	?

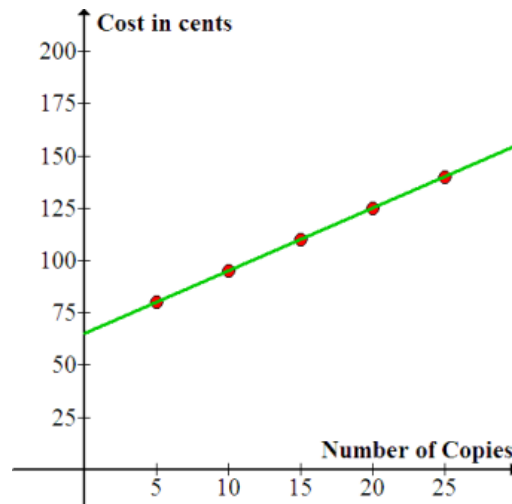
The cost must include the 65¢ for the master.

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### Digital Duplicator:

Makes a reversed "master" (costs 65¢) and then each actual copy costs 3¢.

Number of copies	Cost in ¢
5	80
10	95
15	110
20	125
25	140



Equation?

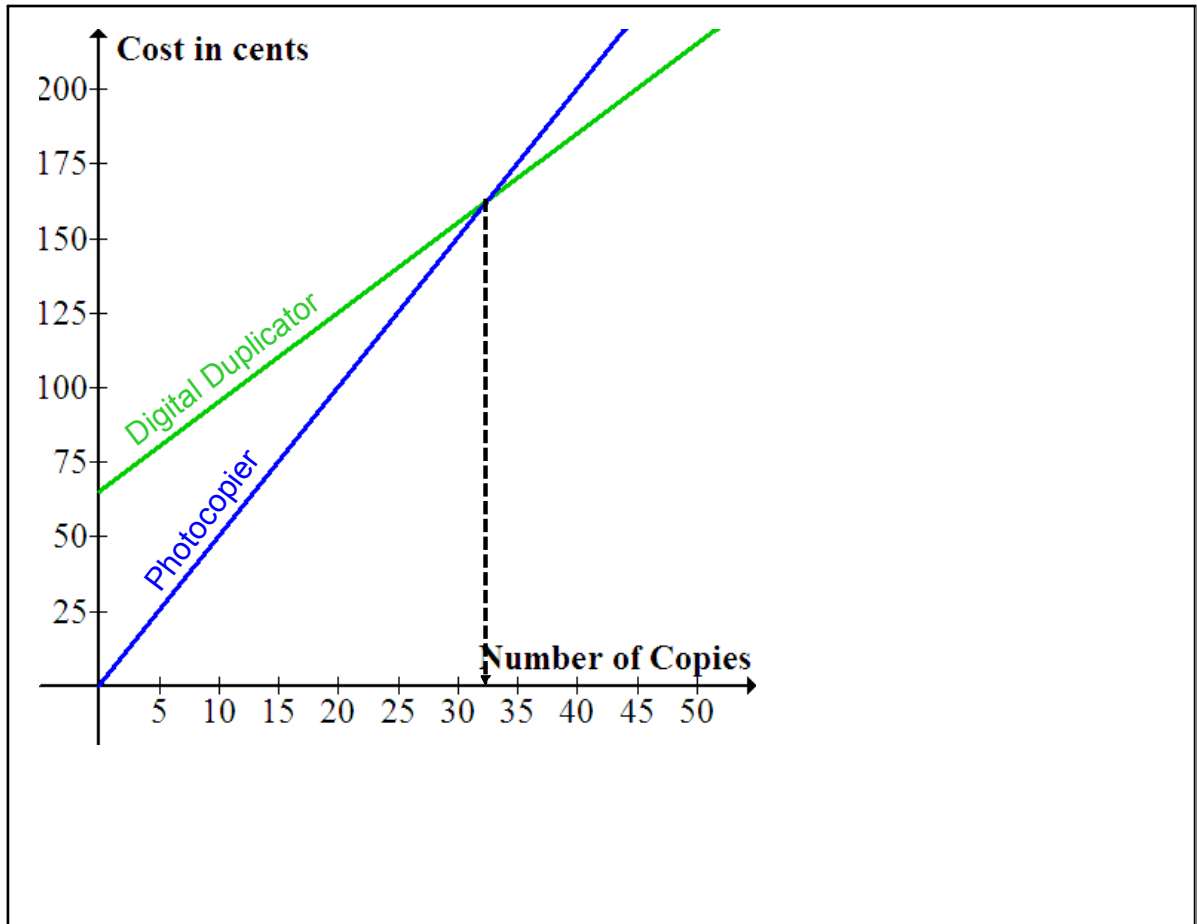
$$y = 3x + 65$$

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When should we use the photocopier?

When should we use the digital duplicator?

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