

ACTIVITY -II

PLAN OF EVALUATION

Guidelines:

The student teacher will prepare a unit plan with well measured weightage assigned to the each sub unit, instructional objectives and type of questions for selected unit. She/ he should include formative and summative evaluation plan in a Unit Plan. The same shall be repeated for the other school subject.

To develop and conduct of the unit test:

- The Student teacher will develop and conduct a unit test with prior preparation of a Blueprint, Model Answer and Marking Scheme.
- Proper instructions should be given on Unit Test Paper about duration of the test, length of the answers, compulsory questions use of calculator etc.
- The same shall be repeated for the other school subject.

To develop a Blue-Print with Model Answer and Marking Scheme:

Student Teacher should develop a Blue-Print of a Unit Test to evaluate school student related to the unit taught. She/ He should also prepare Model Answers and Marking Scheme of the Test. The same procedure shall be repeated for the Unit Test of the Other School Subject

॥ पढम् नाणं तजो दया ॥



SHREE JAIN VIDYA PRASARAK MANDAL ADHYAPAK

MAHAVIDYALAYA, CHINCHWADGAON, PUNE 033

TEACHING COMPETENCY IV
INTERNSHIP PROGRAM

20 - 20

ACTIVITY -II
PLAN OF EVALUATION

METHOD - I Science

UNIT PLAN

Topic Name - Fun with Magnets.

S. No.	Topic Name	Content/ unit Name	Total no. of Periods	Evaluation.
1.	Fun with magnets.	<p>what is magnet and magnetism</p> <p>Characteristics of magnet</p> <p>Electromagnet and storing of magnet</p>	<p>1.</p> <p>1</p> <p>1.</p>	<p>1. Formative Evaluation</p> <p>Q. What is a magnet? and types of magnet</p> <p>Q. Write characteristics of magnet</p> <p>Q. What is electromagnet? write uses of electromagnet.</p> <p>Q2 Summative Evaluation</p> <p>1) Write properties of magnet?</p> <p>2) How magnetism is destroyed.</p>

ACTIVITY 2- 1 A - UNIT PLAN

EVALUATION SCHEME

Rating Scale: 1) Unsatisfactory 2) Average 3) Satisfactory 4) Good 5) Excellent

Sr. No	Criteria	1	2	3	4	5
1	Unit Analysis				✓	
2	Objectives & Specifications				✓	
3	Learning experiences by Teacher				✓	
4	Student's Participation				✓	
5	Plan for Formative Evaluation			✓		
6	Plan for Summative Evaluation			✓		
7	Teaching Method			✓		
8	Time Schedule			✓		
9	Educational Implication			✓		
10	Overall Impression			✓		
Total Marks Out of 50						34

Qualitative Feedback: _____

Signature of Guide

Signature of Observer

मूल्यमापन तक्ता

पदनिश्चयन श्रेणी : 1) असमाधानकारक 2) सरासरी 3) समाधानकारक 4) चांगला 5) उत्कृष्ट

अ.क्र.	निकष	1	2	3	4	5
1	घटक विश्लेषण					
2	उद्दिष्टे आणि स्पष्टीकरणे					
3	शिक्षकाद्वारे अध्ययन अनुभूती					
4	विद्यार्थी सहभाग					
5	आकारिक मूल्यमापनासाठीचे नियोजन					
6	संकलित मूल्यमापनासाठीचे नियोजन					
7	अध्यापन पद्धती					
8	वेळेचे नियोजन					
9	शैक्षणिक उपयोजन					
10	एकूण प्रभाव					
एकूण गुण ५० पैकी						

गुणात्मक प्रत्याभरण : _____

मार्गदर्शक प्राध्यापक सही

निरीक्षक प्राध्यापक सही

DEVELOPING A BLUE PRINT WITH MODEL ANSWER & MARKING SCHEME

What is a blue print.

It is a three dimensional chart giving the placement of the different questions in respect of

- a) the objectives
- b) the content area
- c) the form of question.

Three aspects of blue print-

a) Objective - Knowledge, Understanding, Application skill

b) Content - first decide the scope of unit and how much weightage is to be given to each unit. weightage should be given depending on how much time is allotted for that particular content.

Weightage should be reflected in the number of questions included in the test.

Types of questions -

For testing a particular ability and content most suitable form of questions should be used.

- Objective type
- Short answer
- long answer.

1) First Dimension Subunit.

Sr. No.	Subunit	Marks	Percentage
1.	Properties	10	40 %
2.	Types	6	24 %
3.	Uses	9	36 %
	Total	25	100

2) Second dimension : objectives.

Sr. No.	Objectives	Marks	Percentage
1.	Knowledge	5	20
2.	Understanding	10	40
3.	Application	8	32
4.	Skill	2	8
	Total	25	100

3) Third dimension Types of questions.

Sr. No.	Types of questions	Marks	Percentage
1.	Objective	5	20
2.	Short answer	12	48
3.	Long answer	8	32
	Total	25	100

Blue print : E - Easy type, S - Short answer type, O - Objective type
 Number inside bracket indicate questions & Number outside bracket indicate marks.

Unit/ Subunit	Objectives												Marks
	Knowledge			Understanding			Application			Skill			
	O	S	E	O	S	E	O	S	E	O	S	E	
Properties of Magnet	1	2			2				4				10
Types of Magnet	1				2								6
Uses of Magnet	1				2				4		2		9
Total.	1			2			4			2			25

ACTIVITY 2 – 1- B

EVALUATION SCHEME:

DEVELOPING A BLUE PRINT WITH MODEL ANSWER & MARKING SCHEME

Rating Scale: 1) Unsatisfactory 2) Average 3) Satisfactory 4) Good 5) Excellent

Sr. No	Criteria	1	2	3	4	5	
1	Structure of Blue Print as per the Objective			✓			
2	Structure according to sub units & mark Distribution			✓			
3	Structure according to question type			✓			
4	Overall 3 dimensional design: Correct & Complete			✓			
5	Accuracy of Model Answers				✓		
6	Model Answer as per objectives of the question				✓		
7	Expected outline of the answers in Model answers				✓		
8	Marking scheme according to the scope				✓		
9	Point-wise/ Sub questions wise Marking Scheme			✓			
10	Overall Impression			✓			
						Total Marks Out of 50	34

Qualitative Feedback: _____

Signature of Guide

Signature of Observer

मूल्यमापन तक्ता

संविधान तक्त्याचे नमुना उत्तरपत्रिका आणि गुणदान योजनासह विकसन

पदनिश्चयन श्रेणी : 1) असमाधानकारक 2) सरासरी 3) समाधानकारक 4) चांगला 5) उत्कृष्ट

अ.क्र.	निकष	1	2	3	4	5
1	संविधान तक्ता उद्दिष्टानुसार आकार					
2	उपघटकाच्या आकारानुसार गुण विभागणी					
3	आकारानुसार प्रश्नप्रकार					
4	एकूण त्रिमितीय रचना : अचूक आणि पूर्ण					
5	नमुना उत्तराची अचूकता					
6	प्रश्नाच्या उद्दिष्टानुसार नमुना उत्तराची अचूकता					
7	नमुना उत्तराचा अपेक्षित आराखडा					
8	व्याप्तीनुसार गुणदान योजना					
9	प्रश्न व उपप्रश्न नुसार मुद्देसूद गुणदान योजना					
10	एकूण प्रभाव					
						एकूण गुण ५० पैकी

गुणात्मक प्रत्याभरण :

मार्गदर्शक प्राध्यापक सही

निरीक्षक प्राध्यापक सही

Unit Test

Subject – Science

Std – VI

Q1) Fill in the blanks.

(5 Marks)

- 1) If a bar magnet is hung by a thread tied at its center its north pole becomes steady in the direction of the _____ pole of the earth.
- 2) If a bar magnet is cut into equal pieces by cutting it at right angles to its axis at two places _____ bar magnets are formed and total _____ poles are formed.
- 3) There is repulsion between the _____ pole of magnet and attraction between opposite poles.
- 4) When magnetic material is taken close to a magnet the material acquires _____.
- 5) A magnet remains steady in a _____ direction.

Q2) answer the following questions.

(12 Marks)

- 1) How will you determine whether a material is magnetic or non-magnetic ?
- 2) How will you determine North and South poles of a magnet ?
- 3) Write different types of magnets.
- 4) Write any two uses of magnets.
- 5) Which magnet will you use,
 - a) Iron is to separate from trash
 - b) A window shutter opens and shut.
- 6) Write properties of magnet.

Q3) Answer the following.

(8 Marks)

- 1) How will you explain that a magnet has a certain magnetic field ?
- 2) How is an electromagnet is made ? write the properties of a magnet.

Model Answersheet

PAGE NO.:

DATE: / /

Q. fill in the blanks. (Marks - 6)

- a) If a bar magnet is hung by a thread tied at its centre its north pole becomes steady in the direction of the north pole of the earth.
- b) If a bar magnet is cut into equal pieces by cutting it at right angles to its axis at two places 3 bar magnets are formed and total 6 poles are formed.
- c) There is repulsion between the like pole of magnet and attraction between opposite poles.
- d) When magnetic material is taken close to a magnet the material acquires induced magnetism.
- e) A magnet remains steady in a north-south direction.

Q2) Answer the following questions. (Marks - 12)

- 1) How will you determine whether a material is magnetic or non-magnetic.
→ If a material sticks to a magnet, then it is a magnetic material otherwise it is a non magnetic material.

Q2) How will you determine the north pole of a magnet.

- Tie a thread to the centre of a magnet and hang it from a stand as shown. wait till the magnet settles itself. The pole that point towards the geographic north is the North pole of the magnet.

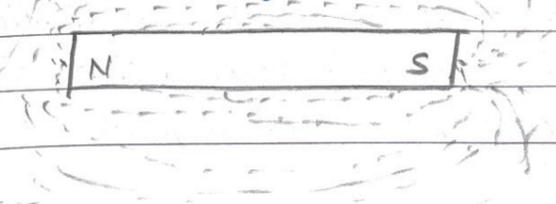
Q3) Write different types of magnets?
 → different types of magnet are Bar magnet, disc magnet, horse shoe magnet, ring shaped magnet, and cylindrical magnet etc.

Q4) Write any two uses of magnet?
 → 1) Electromagnet can be used to separate iron from trash.
 2) Bar magnet or loadstone can be used to find the direction in forest.

Q5) Which magnet will you use.
 (a) Iron is to separate from trash
 (b) A window shutter opens and shuts
 → a) Electromagnet is used to separate Iron from trash
 b) Permanent magnet can be used to stop the continuous shuttering of the window in the wind.

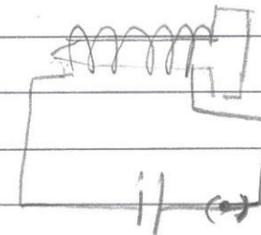
Q6) Write properties of magnet.
 → i) Magnets like poles repel each other where as opposite poles attract one other.
 ii) The magnets poles are arranged in pairs.
 iii) magnet attract ferromagnetic materials.

Q3) Answer the following.
 a) How will you Explain that a magnet has a certain magnetic field?
 → A magnet has a certain magnetic field which can be demonstrated using the below activity.



① Take a drawing cardboard and sprinkle some iron filings on it ② Notice the position of the iron filings as a whole
 ③ Now take a bar magnet and slowly bring it below the cardboard. You will observe that the iron filings tend to attract towards the magnet and align themselves as shown.
 ④ It represents that the magnet exerts a force around its body with a stronger force near the two poles.
 ⑤ Also this regular pattern of the iron filings on the board represents the lines of magnetic field. Thus a magnet has a certain magnetic field which can be represented by curved lines around a magnet.

Q2) How is an electromagnet is made & write the properties of a magnet.



a) for the construction of an electromagnet, we require an iron nail, a long insulated copper wire, a battery and a switch.

The long insulated copper wire is first wound on the iron nail. Then the two free ends of the wire is connected to the battery and the switch as shown. Now when the switch is turned on, current flow through the circuit. Due to this flow of current, The insulated Cu wire and iron nail act as an electro-magnet.

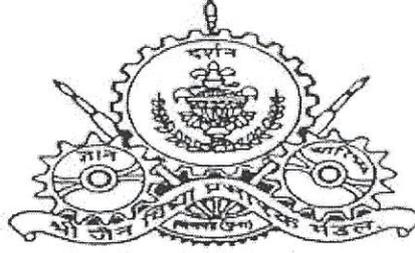
As soon as the current stops flowing in the

circuit, the iron nail loses magnetism and pins fall.

b) Properties of magnet

- 1) A magnet has two poles known as North pole and south pole.
- 2) A magnet when suspended freely always rests in north-south direction.
- 3) A magnet has property to attract magnetic materials towards it.
- 4) Magnetic force of magnet is concentrated at its two poles.

॥ पढम् नाणं तओ दया ॥



स्थापना : ८/९/१९२७

SHREE JAIN VIDYA PRASARAK MANDAL ADHYAPAK
MAHAVIDYALAYA, CHINCHWADGAON, PUNE 033

TEACHING COMPETENCY IV

INTERNSHIP PROGRAM

2021-2022

ACTIVITY -II

PLAN OF EVALUATION

Teaching Method - II

Mathematics

UNIT PLAN

Topic Name - Direct proportion and Inverse Proportion.

Sr. No.	Topic Name	Content / unit name	Total no. of Periods	Evaluation.
1.	Direct Proportion and Inverse Proportion	<p>Direct Proportion</p> <p>Examples</p> <p>Inverse Proportion</p>	<p>1</p> <p>1</p> <p>1.</p>	<p>1) formative Evaluation. What do you mean by ratio</p> <p>2) What is direct Proportion.</p> <p>3) What is Inverse Proportion</p> <p>2. Summative Evaluation</p> <p>Q. solve the word Problem.</p>

ACTIVITY 2- 1 A - UNIT PLAN

EVALUATION SCHEME

Rating Scale: 1) Unsatisfactory 2) Average 3) Satisfactory

4) Good 5) Excellent

Sr. No	Criteria	1	2	3	4	5
1	Unit Analysis				✓	
2	Objectives & Specifications			✓		
3	Learning experiences by Teacher			✓		
4	Student's Participation				✓	
5	Plan for Formative Evaluation			✓		
6	Plan for Summative Evaluation			✓		
7	Teaching Method			✓		
8	Time Schedule				✓	
9	Educational Implication			✓		
10	Overall Impression			✓		
Total Marks Out of 50						33

Qualitative Feedback: _____

Signature of Guide

Signature of Observer

मूल्यमापन तक्ता

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2	उद्दिष्टे आणि स्पष्टीकरणे					
3	शिक्षकाद्वारे अध्ययन अनुभूती					
4	विद्यार्थी सहभाग					
5	आकारिक मूल्यमापनासाठीचे नियोजन					
6	संकलित मूल्यमापनासाठीचे नियोजन					
7	अध्यापन पद्धती					
8	वेळेचे नियोजन					
9	शैक्षणिक उपयोजन					
10	एकूण प्रभाव					
एकूण गुण ५० पैकी						

गुणात्मक प्रत्याभरण : _____

मार्गदर्शक प्राध्यापक सही

निरीक्षक प्राध्यापक सही

What is blue print?

It is a three dimensional chart giving the placement of the different questions in respect of

- a) Content area
- b) Objectives
- c) the form of questions.

* Three aspects of blue print -

a) Content Area - first decide the scope of unit and how much weightage is to be given to each unit. weightage should be given depending on how much time is allotted for that particular content.

Weightage should be reflected in the number of questions included in the test.

b) Objectives - Knowledge, Understanding, Application, skill

Types of Question -

For testing particular ability and content most suitable form of questions should be used.

- Objective type.
- Short answer.
- Long answer.

1) First dimension : subunit

Sr. No.	Content/ Unit	Marks	Percentage.
1.	Direct Proportion	05	20
2.	Inverse Proportion	07	28
3.	Partnership	08	32
4.	Identification	05	20
	Total	25	100

2) Second dimension : Objectives

Sr No.	Objectives	Marks	Percentage
1.	Knowledge	9	36
2.	Understanding	12	48
3.	Application	2	8
4.	Skill	2	8
	Total.	25	100

3) Third dimension : Types of Questions.

Sr No.	Types of questions	Marks	Percentage
1.	Objective	07	28
2.	Short answer type.	13	52
3.	Long answer type	05	20
	Total	25	100

Blue Print.

Sr No.	Unit/ subunit	Objectives												Marks		
		Knowledge			Understanding			Application			Skill					
		E	S	O	E	S	O	E	S	O	E	S	O			
1.	Direct Proportion	3(1)	1(1)			1(1)										5
2.	Inverse Proportion	2(2)	1(1)		2(1)	2(2)										7
3.	Partnership.	2(1)				2(2)		2(1)		2(1)						8
4.	Identification				5(1)											5
		09			12			02		02						25

* No. inside bracket indicate - No. of questions
 * No. outside the bracket indicate - Marks.

**ACTIVITY 2 – 1- B
EVALUATION SCHEME:**

DEVELOPING A BLUE PRINT WITH MODEL ANSWER & MARKING SCHEME

Rating Scale: 1) Unsatisfactory 2) Average 3) Satisfactory 4) Good 5) Excellent

Sr. No	Criteria	1	2	3	4	5
1	Structure of Blue Print as per the Objective			✓		
2	Structure according to sub units & mark Distribution			✓		
3	Structure according to question type			✓		
4	Overall 3 dimensional design: Correct & Complete			✓		
5	Accuracy of Model Answers			✓		
6	Model Answer as per objectives of the question				✓	
7	Expected outline of the answers in Model answers				✓	
8	Marking scheme according to the scope				✓	
9	Point-wise/ Sub questions wise Marking Scheme				✓	
10	Overall Impression			✓	✓	
Total Marks Out of 50						36

Qualitative Feedback: _____

Signature of Guide

Signature of Observer

मूल्यमापन तक्ता

संविधान तक्त्याचे नमुना उत्तरपत्रिका आणि गुणदान योजनासह विकसन

पदनिश्चयन श्रेणी : 1) असमाधानकारक 2) सरासरी 3) समाधानकारक 4) चांगला 5) उत्कृष्ट

अ.क्र.	निकष	1	2	3	4	5
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3	आकारानुसार प्रश्नप्रकार					
4	एकूण त्रिमितीय रचना : अचूक आणि पूर्ण					
5	नमुना उत्तराची अचूकता					
6	प्रश्नाच्या उद्दिष्टानुसार नमुना उत्तराची अचूकता					
7	नमुना उत्तराचा अपेक्षित आराखडा					
8	व्याप्तीनुसार गुणदान योजना					
9	प्रश्न व उपप्रश्न नुसार मुद्देसूद गुणदान योजना					
10	एकूण प्रभाव					
एकूण गुण ५० पैकी						

गुणात्मक प्रत्याभरण : _____

मार्गदर्शक प्राध्यापक सही

निरीक्षक प्राध्यापक सही

- 3) For 9 cows, 13kg 500g of food supplement are required everyday. In the same proportion how much will be needed for 12 cows ?

Q3) solve the following examples

(7 Marks)

- 1) The stock of grain in a government waterhouse lasts 30 days for 4000 people. How many days will it last 6000 people?
- 2) Mary cycles at 6 km per hour. How long will she take to reach aunt's house. Which is 12 km away ? if she cycles at a speed of 4 km/hr . how long would she take?
- 3) 5 workers take 12 days to weed a field. how many would 15 take?

Q4) Solve the following and identify the properties (5 Marks)

- 1) The cost of 8 pounds of apples is \$10, what will be the cost of 32 pounds of apples.

Model Answers

PAGE NO.:

DATE: / /

Q1) Multiple choice questions (7 marks)

1) If 10 pens cost 60 rupees, what is the cost of 13 such pens

→ Let us suppose the cost of pen is x rupees
the number of pens and their cost vary in direct proportion
let us express the ratio and obtain an equation

$$\frac{10}{60} = \frac{13}{x}$$

$$\therefore 10x = 180$$

$$\therefore x = 18$$

Cost of 13 pens is 18

2) Fifteen workers take 8 hours to build a wall
How many hours will 12 workers need to build the same wall

→ As the number of workers increase number of hours decreases

$$\therefore 12 \times x = 15 \times 8$$

$$\therefore 12x = 120$$

$$\therefore x = 10$$

12 workers need 10 hours to build a wall

3) A 40 page class magazine is to be written
if one student would require 80 days to write it
how many would be 4 students require?

→ solution -

$$4x = 80 \times 1$$

$$x = 20$$

\therefore 4 students require 20 days

4) Thelum and Atharva invested 2100 and 2800 rupees respectively and started a business. They made a profit of 3500 rupee. How should it be shared.

$$\rightarrow \therefore 7x = 3500$$

$$\therefore x = 500$$

Thelums share = $3x = 1500$ rupees

f Atharva's share = $4x = 2000$ rupees.

5) Number of diameters increases the number of divisions also increases Direct proportion.

6) Number of diameter the number of divisions also also decreases - Inverse proportion.

7) The perimeter of square and its side is in Direct Proportion.

Q2) Solve the following (6 marks)

1) If 7 kg onions cost Rs 140 how much we pay for 12 kg onions.

\rightarrow let the cost of 12 kg onions be Rs. x
The quantity of onions and their cost are in direct proportion

$$\therefore \frac{7}{140} = \frac{12}{x}$$

$$\therefore 7x = 12 \times 140$$

$$\therefore x = \frac{12 \times 140}{7}$$

$$\therefore x = 240$$

\therefore we must pay 240 Rs for 12 kg onions.

2) If Rs 600 buy 15 bunches of feed, how many will Rs 1280 buy?

\rightarrow let the bunches of feed bought for Rs 1280 be x
The quantity of feed bought and their cost are in direct proportion

$$\therefore 600/15 = 1280/x$$

$$\therefore 600x = 1280 \times 15$$

$$\therefore x = 32$$

\therefore 32 bunches of feed can be bought for Rs 1280.

3) for 9 cows, 13 kg 500 g of food supplement are required every day. In the same proportion how much will be needed for 12 cows?

\rightarrow let the food supplement required for 12 cows be x kg.

$$\therefore 13 \text{ kg} \times 500 \text{ gram/g} = x \text{ kg}/12$$

$$\therefore 13.5/g = x/12$$

$$\therefore 13.5 \times 12 = 9x$$

$$\therefore x = 18$$

\therefore The food supplement required for 12 cows is 18 kg

Q3) Solve the following examples (7 marks)

1) The stock of grain in a government waterhouse lasts 30 days for 4000 people. How many days will it last 6000 people?

\rightarrow let the stock of grain last for x days
The number of people and the days for which stock will last are in inverse proportion

$$\therefore 6000x = 4000 \times 30$$

$$\therefore x = \frac{4000 \times 30}{6000}$$

$$\boxed{\therefore x = 20}$$

\therefore The stock of grain will last for 20 days for 6000 people.

2) Mary cycles at 6 km per hour. How long will she take to reach her Aunt's house which is 12 km away? If she cycles at a speed of 4 km/hr, how long would she take?

\rightarrow Speed of cycle = 6 km/hr
Distance travelled to reach her Aunt's house = 12 km

$$\therefore \text{Time required} = \frac{\text{Distance travelled}}{\text{Speed}}$$

$$= \frac{12}{6}$$

$$= 2 \text{ hours}$$

$$\therefore 4x = 6 \times 2$$

$$\therefore x = \frac{2 \times 6}{4}$$

$$\boxed{\therefore x = 3}$$

\therefore Mary will require 2 hours if she is cycling at 6 km/hr and 3 hours if she is cycling at 4 km/hr to reach her aunt's house.

3) Five workers take 12 days to weed a field. How many days would 6 workers take? How many would 15 take?

\rightarrow let 6 workers take x days and 15 workers take y days to weed the field

$$\therefore 6 \times x = 5 \times 12$$

$$\therefore x = \frac{5 \times 12}{6}$$

$$\boxed{\therefore x = 10}$$

Also $15y = 5 \times 12$

$$\therefore y = \frac{5 \times 12}{15}$$

$$\therefore \boxed{y = 4}$$

\therefore 6 workers will take 10 days and 15 workers will take 4 days to weed a field.

4) Solve the following and identify the properties (5 marks)

i) The cost of 8 pounds of apples is \$10; what will be the cost of 32 pounds of apples.

\rightarrow weight of apples = 8 lb

Cost of apples = \$10

let us consider weight x parameter and cost by y parameter

$$y = kx$$

$$10 = k \times 8$$

$$k = \frac{10}{8} = \frac{5}{4}$$

Now putting,

The value of $k = \frac{5}{4}$ when $x = 32$

$$\text{cost } 32 = \frac{5}{4} \times 32$$

lb apples

$$\therefore y = 5 \times 8$$

$$\boxed{y = 40}$$

\therefore The cost of 32 lb apples is \$40.