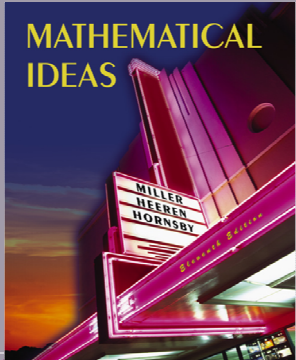


Chapter

MATHEMATICAL IDEAS

The Art of Problem Solving
Active Learning
Questions



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Jan 18-7:58 AM

Section 1.1: Solving Problems by Inductive Reasoning

Is the reasoning an example of inductive or deductive reasoning?

If it rains, then Jess will stay home. It is raining. Therefore, Jess is at home.

- a) Deductive
- b) Inductive



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Section 1.1: Solving Problems by Inductive Reasoning

Is the reasoning an example of inductive or deductive reasoning?

It was sunny yesterday, and it is sunny today. Therefore it will be sunny tomorrow.

- a) Deductive
- b) Inductive



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Section 1.2: An Application of Inductive Reasoning: Number Patterns

Find the probable next number in the sequence 1, 5, 13, 25, 41,...

- a) 51
- b) 58
- c) 61



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Section 1.2: An Application of Inductive Reasoning: Number Patterns

1. When applying the sum formula to $1+3+5+\dots+51$ what is the value of n ?

- a) 25
- b) 26
- c) 51
- d) 676

2. Find the sum.



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Section 1.2: An Application of Inductive Reasoning: Number Patterns

1. When applying the sum formula to $1+2+3+\dots+109$ what is the value of n ?

- a) 110
- b) 109
- c) 55
- d) 5995

2. Find the sum.



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Section 1.3: Strategies for Problem Solving

Given a number, you subtract 6, divide the result by 2, and then add 3 to get 15. What is the original number?

- a) 3
- b) 24
- c) 30



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Section 1.3: Strategies for Problem Solving

How many ways can you make change for fifty cents using only nickels and pennies?

- a) 9
- b) 10
- c) 11



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Section 1.3: Strategies for Problem Solving

If you add 5 gallons to a $\frac{2}{3}$ full fuel tank, and it brings the gauge up to $\frac{3}{4}$. How much will the tank hold when full?

- a) 15
- b) 7.5
- c) 60



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Section 1.4: Calculating, Estimating, and Reading Graphs

1. Compute $\sqrt[3]{16.387064}$.

- a) 2.54
- b) 8.191532
- c) 4.095766

2. Compute $\frac{2.4(3.2-5.1)}{9.2(0)}$

- a) No Solution
- b) -0.49565
- c) -4.56



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Section 1.4: Calculating, Estimating, and Reading Graphs

If you drive 1823 miles at an average speed of 62 miles per hour, estimate the time it would take to complete the trip.

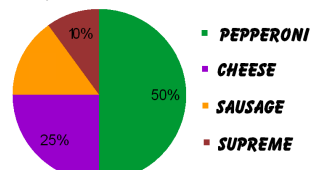
- a) 3 hours
- b) 6 hours
- c) 30 hours
- d) 300 hours



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Section 1.4: Calculating, Estimating, and Reading Graphs

FAVORITE PIZZA TOPPINGS



1. How many people do not like meat on their pizza, if 255 people were surveyed?
2. How many people do not like veggies on their pizza, if 255 people were surveyed?
3. What percentage of people surveyed ordered wings with their pizza?



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Aug 21-8:00 AM