Several versions of Python code to check for Armstrong numbers are provided b

Version 1: Basic Function

This version is straightforward and easy to understand. It works for any number

```python
def is_armstrong(num):
  """Checks if a number is an Armstrong number."""
  num_str = str(num)
  num_digits = len(num_str)
  sum_of_powers = sum(int(digit) ** num_digits for digit in num_str)
  return sum_of_powers == num

# Example usage
number = 153
if is_armstrong(number):
  print(f"{number} is an Armstrong number")
else:
  print(f"{number} is not an Armstrong number")

number = 370
if is_armstrong(number):
  print(f"{number} is an Armstrong number")
else:
  print(f"{number} is not an Armstrong number")

number = 1634
if is_armstrong(number):
  print(f"{number} is an Armstrong number")
else:
  print(f"{number} is not an Armstrong number")

```


Version 2: Handling Non-Integer Input

This version adds error handling for non-integer input.

```python
def is_armstrong(num):
  """Checks if a number is an Armstrong number. Handles non-integer input."""
  try:
    num = int(num)  # Convert to integer, raises ValueError if not possible
    num_str = str(num)
```