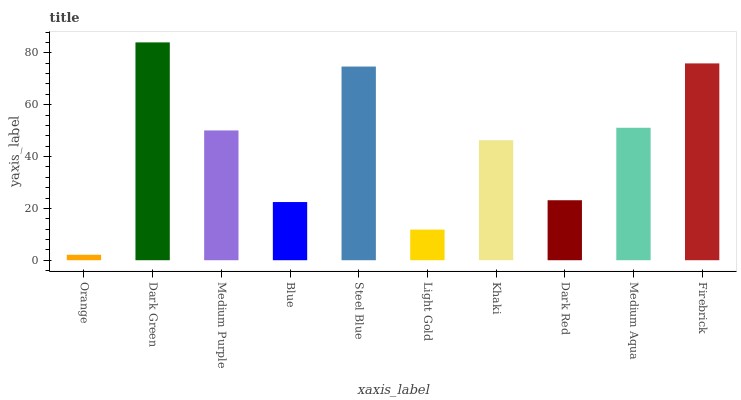
M – Got correct after modifying the prompt with “Analyse the following chart carefully and answer the following questions correctly.”

VERTICAL BAR GRAPH:

1.(6)



How many bars are there?

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. |  | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y |  |
| 5. |  | M |  |
|  |  |  |  |

What are their colors?

Which color has max value?

Which color has min value?

Is Light Gold greater that blue?

Ans:

10

-

Dark Green

Orange

No

2.(8)

A graph showing different colors of different shades of blue green red yellow and purple

Description automatically generated with medium confidence

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. |  | Y | Y |
| 2. | Y | Y | Y |
| 3. | M | Y |  |
| 4. | Y | Y |  |
| 5. | Y | Y | Y |
| 6. | Y | Y | Y |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Which is greater among Maroon and Firebrick?

Is the value for Medium Aqua same as that for Medium Blue?

Ans:

10

-

Medium Seaform

Cyan

Maroon

No

3.(16)

A bar graph with different colored rectangles

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Ans:

2

-

Purple

Olive

4.(56)

A graph with a green and purple rectangle

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Ans:

2

-

Medium Seafoam

Medium Purple

5.(57)

A bar graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Is the value for seafoam same as that of Forest Green?

Ans:

7

-

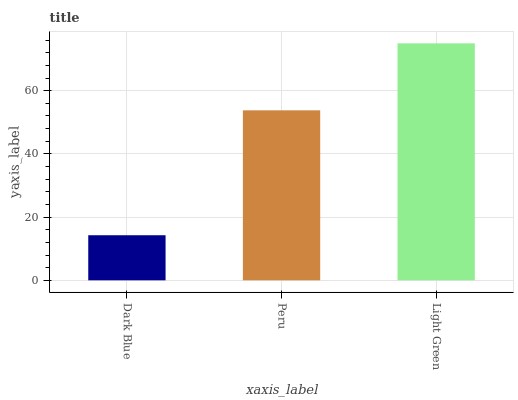
Blue Violet

Orange

No

(claude does not use the color names given in the graphs)

6.(112)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value for Peru?

Ans:

3

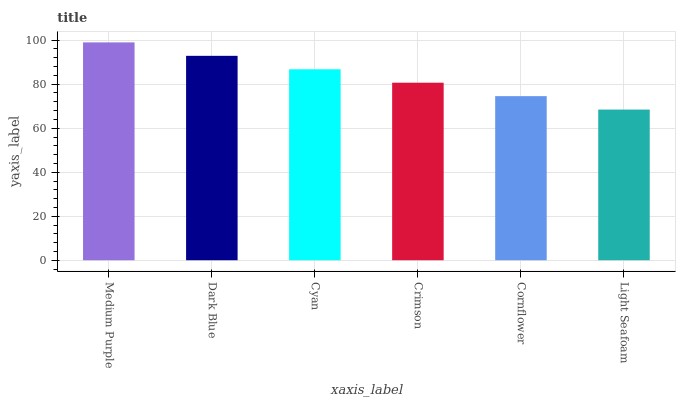
-

Light Green

Dark Blue

53

7.(116)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y |  |
| 4. | Y | Y |  |
| 5. | Y |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value of crimson?

Ans:

6

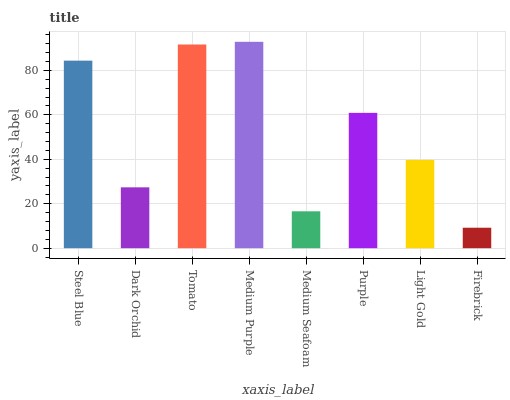
-

Medium Purple

Light Seafoam

80

8.(120)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. |  | Y |  |
| 4. | Y | Y |  |
| 5. | Y | Y |  |
| 6. | Y |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Which is larger between Medium Purple and Purple?

Do Tomato and Medium Purple have the same values?

Ans:

8

-

Medium Purple

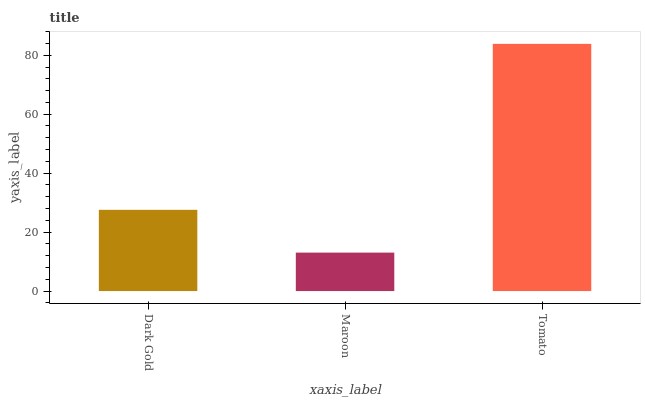
Firebrick

Medium Purple

No

**(gemini got close bars wrong)**

9.(151)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y |  |
| 5. | Y |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value for Dark Gold?

Ans:

3

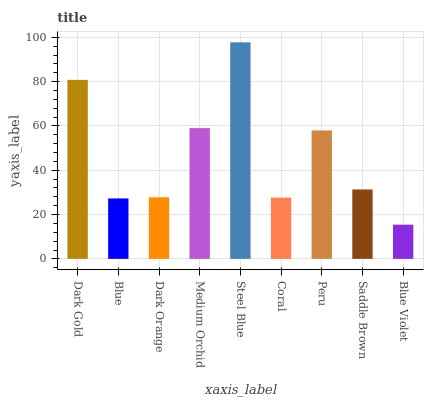
-

Tomato

Maroon

28

10.(152)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. |  | Y |  |
| 2. | Y | Y |  |
| 3. | Y | Y |  |
| 4. | Y | Y | Y |
| 5. |  | Y |  |
| 6. | Y | Y |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Do Coral and Dark Orange have the same values?

What is the value of Dark Gold?

Ans:

9

-

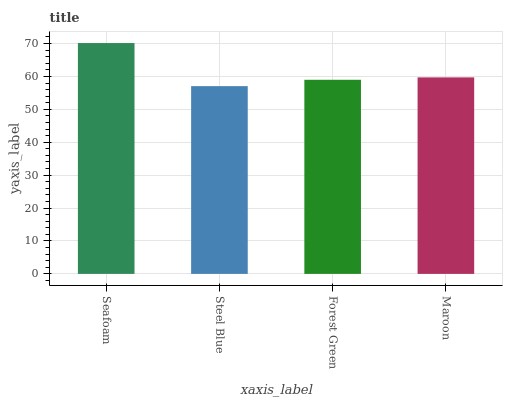
Steel Blue

Blue Violet

Yes

80

11.(162)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y |  |
| 2. | Y | Y |  |
| 3. | Y | Y |  |
| 4. | Y | Y |  |
| 5. | Y | Y |  |
| 6. | Y | M | Y |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value of Seafoam?

Do Forest Green and Maroon have the same values?

Ans:

4

-

Seafoam

Steel Blue

70

No

**GPT4o can get wrong answers when things are close**

12.(164)

A graph of different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | M | Y |
| 2. | Y | Y |  |
| 3. | Y | Y |  |
| 4. | Y | Y | Y |
| 5. | M | Y |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Which color bars are greater than Peru?

Ans:

8

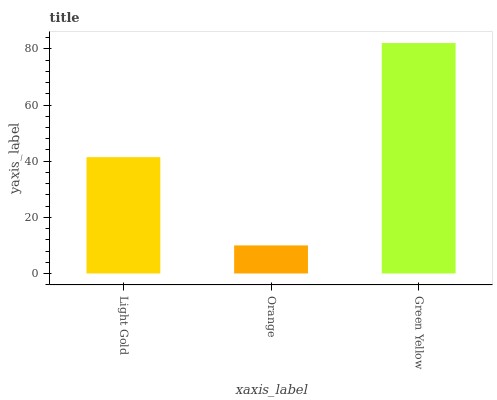
-

Pale Green

Medium Purple/Light Green

Dark Turquoise, Saddle Brown and Pale Green

13. (171)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y |  |
| 3. | Y | Y | Y |
| 4. | Y | Y |  |
| 5. | Y | Y |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Are there three bars? If yes, which color bar has the height that is greater than one and less than one i.e in the middle?

Ans:

3

-

Green Yellow

Orange

Yes, Light Gold

**Claude 3 Opus straight up hallucinates, found south Africa on the chart**

14.(197)

A bar graph with different colored squares

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y |  |
| 2. | Y | Y |  |
| 3. |  | Y | Y |
| 4. | Y | Y |  |
| 5. | Y | Y |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

How many colors have “Dark” in their name?

Ans:

4

-

Medium Aqua

Dark Orange

2

15. (20)A graph showing different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y |  |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Which colored bar is bigger, Light Green or Green Yellow?

Ans:

7

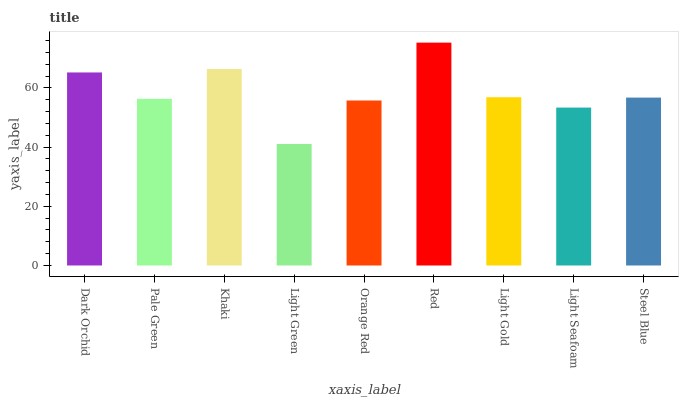
-

Medium Orchid

Red

Light Green

16.(90)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. |  | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y |  |
| 5. |  |  |  |
| 6. | Y | Y | Y |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Do bars with colors Steel Blue and Light Gold have the same value?

Which is greater, Red or Orange Red?

Ans:

9

-

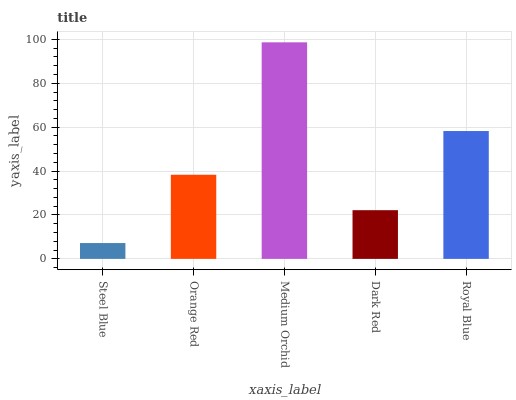
Red

Light Green

Yes

Red

17(118)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y |  |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

How many shades of Blue are there in the chart?

Ans:

5

-

Medium Orchid

Steel Blue

2

18.(125)

A graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y |  |
| 2. |  | Y |  |
| 3. | Y |  | M |
| 4. | Y | Y | M |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Ans:

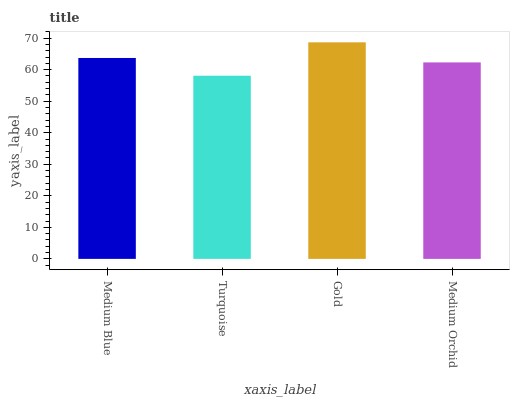
10

-

Coral

Orange Red

19(150)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | M |
| 2. | Y | Y |  |
| 3. | Y | Y |  |
| 4. | Y | Y |  |
| 5. |  | Y | M |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Do bars with colors Midnight Orchid and Medium Blue have the same values?

Ans:

4

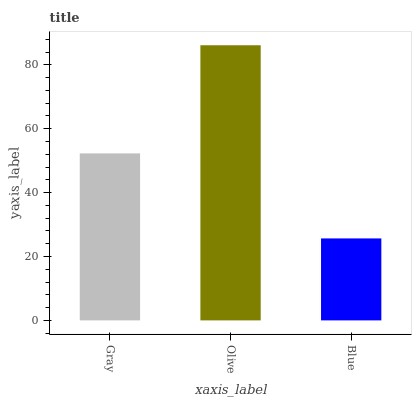
-

Gold

Turquoise

No

20.(1)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value of Gray?

Ans:

3

-

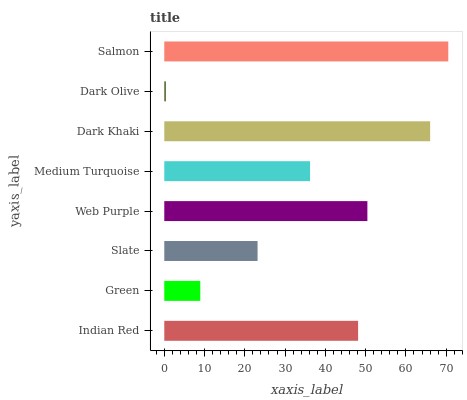
Olive

Blue

52

HORIZONTAL BAR GRAPH:

1.(222)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y |  |
| 5. | Y | Y | Y |
| 6. | Y | Y |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

How many colors have “Dark” in their name?

What is the value of the bar with color web purple?

Ans:

8

-

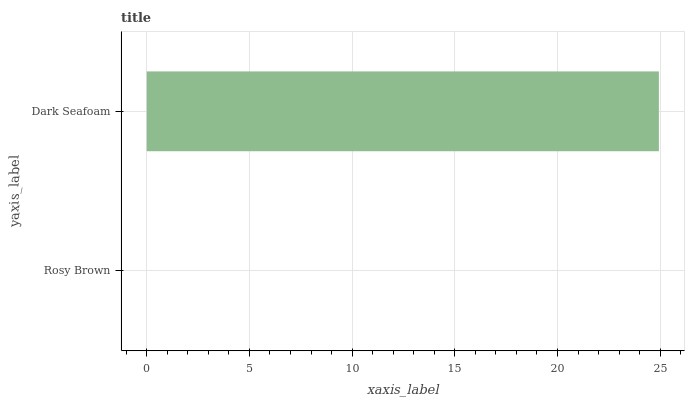
Salmon

Dark Olive

2

50

2.(225)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y |  |
| 3. | Y | Y | Y |
| 4. | Y | Y |  |
| 5. | Y | Y |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value of Rosy Brown?

Ans:

1

-

Dark Seafoam

Rosy Brown

0

3.(255)

A graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. |  | Y |  |
| 4. | M |  |  |
| 5. | Y | Y |  |
| 6. | Y |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Are the values of bars with colors Doger Blue and Sky Blue the same?

What is the value of Yellow?

Ans:

5

-

Doger Blue

Dark Violet

No

76

4(257)

A graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | M |
| 2. | Y | Y | M |
| 3. |  | Y |  |
| 4. | Y | Y | Y |
| 5. |  |  |  |
| 6. | M | Y | M |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What are the values of Light Sky Blue and Dark Periwinkle respectively?

How many colors have dark in their name?

Ans:

8

-

Dark Periwinkle

Light Salmon

68 and 74

3

5(285)

A bar graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | M | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y |  |
| 4. | Y | Y | Y |
| 5. | Y |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Is there a bar with value 20? If yes, what is the color of that bar?

Ans:

7

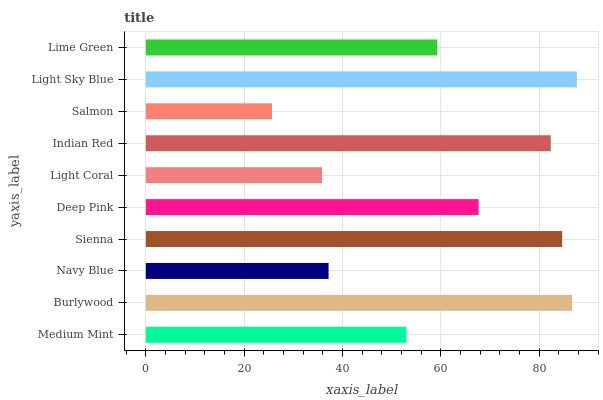
-

Chocolate

Web Maroon

Yes, Teal

6(286)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y |  |
| 2. | Y | Y |  |
| 3. | Y | Y |  |
| 4. |  | Y |  |
| 5. | Y |  | Y |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Which is bigger, Medium Mint or Lime Green?

Ans:

10

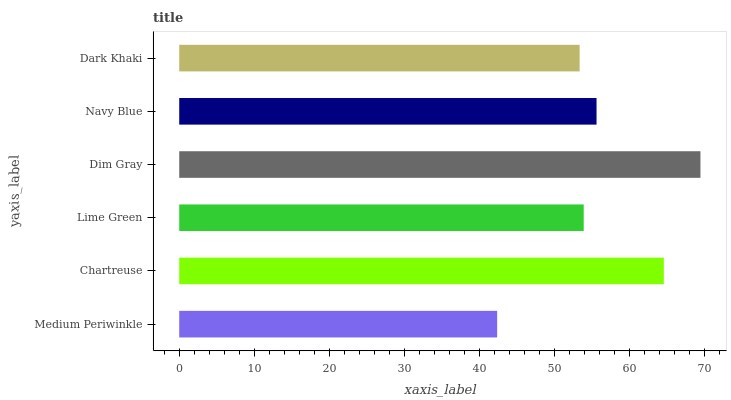
-

Light Sky Blue

Salmon

Lime Green

7(310)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. |  |  |  |
| 4. | Y | Y |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value of Lime Green?

Ans:

6

-

Dim Gray

Medium Periwinkle

58

8(334)

A graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | M | Y |
| 4. | Y | Y | Y |
| 5. | Y |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value of Web Maroon?

Ans:

4

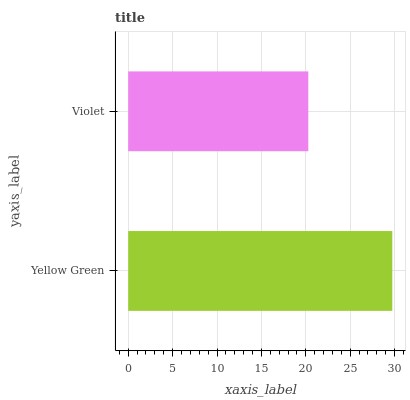
-

Black

Web Maroon

62

9(348)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Ans:

2

-

Yellow Green

Violet

10(349)

A bar graph with different colored lines

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | M | M |  |
| 4. |  | Y |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Ans:-

10

-

Sky Blue

Web Maroon

11(353)

A graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | M |  |  |
| 4. | Y | Y |  |
| 5. | Y |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value of Web Green?

Ans:

5

-

Dark Slate

Cadet Blue

28

12(387)

A graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y |  |
| 4. | Y | Y |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Ans:

3

-

Indian Red

Dark Violet

13(389)

A graph with different colored squares

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Ans:

3

-

Sky Blue

Teal

14(390)

A bar graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | M | Y | Y |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Which is greater between Web Gray and Black?

Ans:

5

-

Medium Periwinkle

Chocolate

Web Gray

15(399)

A bar graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y |  | Y |
| 5. | Y |  | M |
| 6. | Y | Y | Y |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value of the bar with color Indian Red?

Which is greater between Dark Cyan and Dark Slate?

Ans:

6

-

Burlywood

Indian Red

0

Dark Cyan

16(200)

A graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y |  |
| 4. | Y | Y | Y |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Ans:

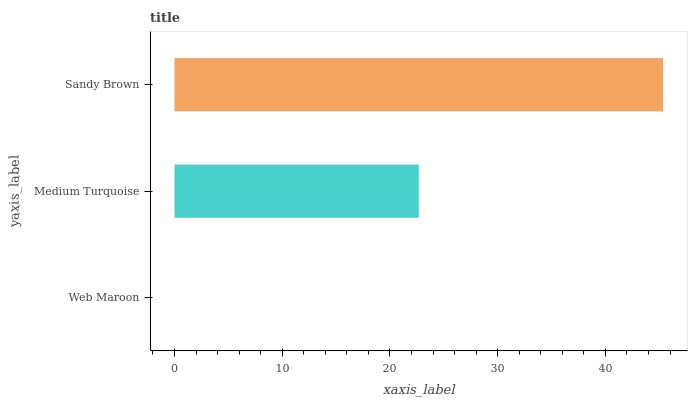
4

-

Hot Pink

Medium Mint

17(220)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y |  | Y |
| 5. |  |  |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Ans:

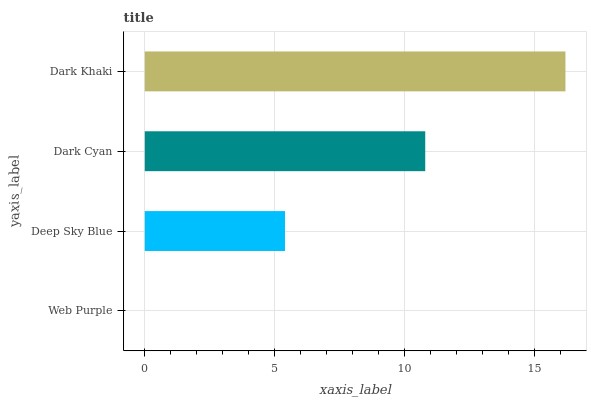
3

-

Sandy Brown

Web Maroon

18(234)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Which color bars are greater than Deep Sky Blue?

Ans:

4

-

Dark Khaki

Web Purple

Dark Khaki and Dark Cyan

19(245)

A bar graph with different colored bars

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | M | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

Which bar is greater between Mint and Lawn Green?

Ans:

8

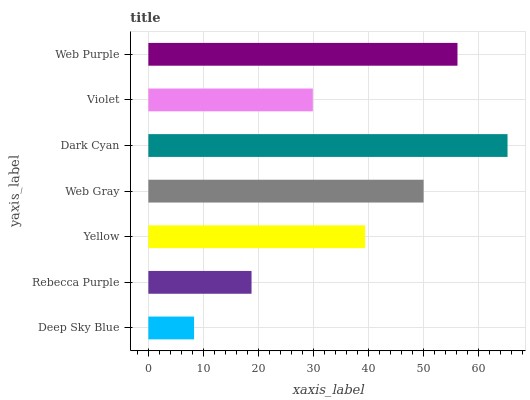
-

Mint

Indigo

Mint

20(382)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y |  |
| 6. |  |  |  |

How many bars are there?

What are their colors?

Which color has max value?

Which color has min value?

What is the value of Violet?

Ans:

7

-

Dark Cyan

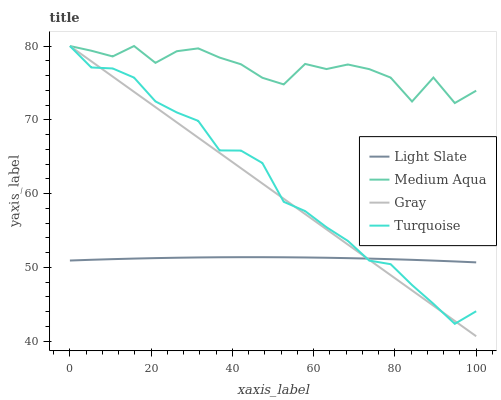
Deep Sky Blue

30

Opus is very bad at determining bar length.

LINE CHARTS:

1(412)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y |  |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Do the lines with color Gray and Light Slate intersect?

Ans:

4

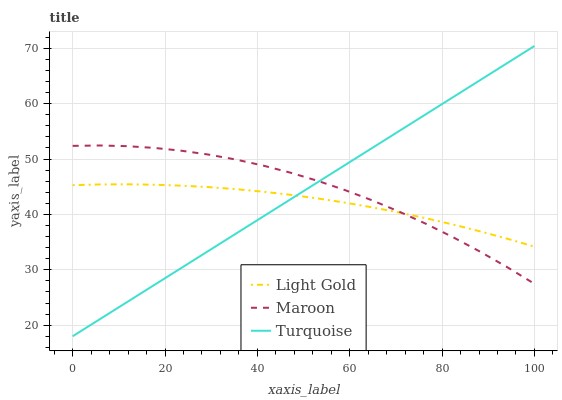
-

100

80

Yes

2(420)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. |  |  |  |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

How many dotted lines are there?

Ans:

3

-

100

70

2

3(424)

A graph with a green line

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y |  | Y |
| 5. | M | Y | Y |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Do any of the lines intersect?

Ans:

2

-

100

70

No

4(430)A graph of two people

Description automatically generated with medium confidence

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | M | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. |  |  |  |
| 6. | Y | Y | Y |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

How many dotted lines are there?

Is there a straight line in the graph?

Ans:

7

-

100

97

5

Yes

(Sometimes GEMINI does not recognize dotted lines at all?/when there is a mixture?)

5(435)

A graph of different colored lines

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  | Y | Y |
| 5. | M |  |  |
| 6. | M | Y | Y |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

How many dotted lines are there?

Is there a point where all five lines intersect?

Ans:

5

-

100

60

4

No

(Different answer in next iteration, 15% of time)

6(436)

A graph showing the difference between the price and the price

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y |  | Y |
| 5. |  | Y | Y |
| 6. |  | Y | M |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Are there any dotted lines?

Do any of the lines intersect with any other?

Ans:

2

-

100

80

0

No

7(439)

A graph showing the difference between forest and dark orange

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y |  | Y |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Do any of the dotted and non dotted lines intersect?

Ans:

2

-

100

84

Yes

8(454)

A graph of a purple and medium orchid

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Do any of the lines intersect?

Ans:

2

-

100

24

No

9(459)

A graph showing the different types of labels

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y |  | Y |
| 5. | Y | Y |  |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Are there any non dotted lines?

Ans:

3

-

100

35

No

10(478)

A graph showing different colored lines

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  | Y |
| 5. |  |  |  |
| 6. | M | Y | Y |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

How many dotted lines are there?

Do any of the dotted and non dotted lines intersect?

Ans:

6

-

100

80

5

Yes

11(487)

A graph showing the difference between the same label

Description automatically generated with medium confidence

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. |  | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  | Y |
| 5. | Y | Y | Y |
| 6. |  | Y | Y |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Are there any dotted lines? If yes, how many?

Are there any non dotted lines? If yes, how many?

Ans:

6

-

100

90

No

Yes, 6

12(509)

A graph of different colored lines

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  | Y |
| 5. |  |  |  |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

How many intersection points are there?

Ans:

3

-

100

80

3

13(516)

A graph of different colored lines

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | M | Y |
| 6. |  | Y | Y |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Do the lines with color Light Gold and Saddle Brown intersect at any point?

Is there a straight line in the chart?

Ans:

7

-

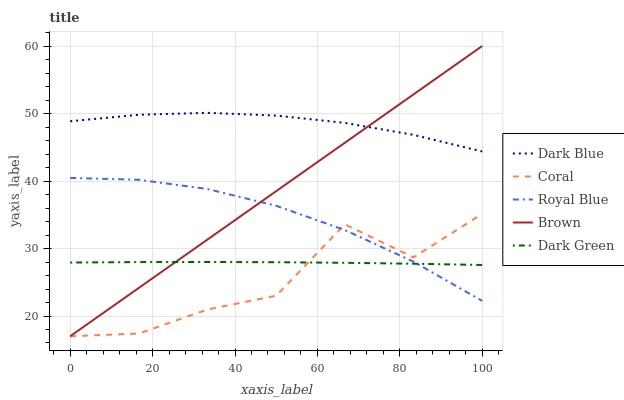
100

100

Yes

Yes

14(518)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Does the non dotted line intersect all the dotted lines? Not necessarily at the same point.

Ans:

5

-

100

60

Yes

15(521)

A graph showing the different types of data

Description automatically generated with medium confidence

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  | Y |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Are there any straight dotted lines?

Ans:

5

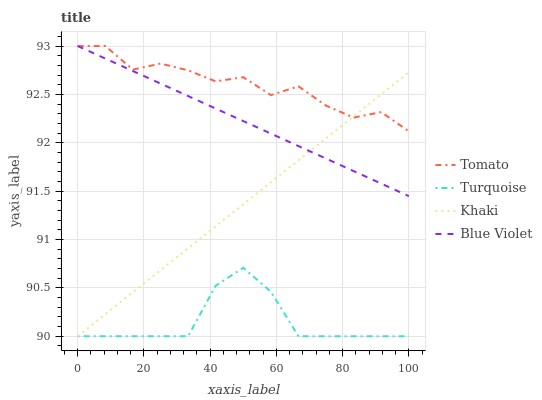
-

100

92

Yes

16(527)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y |  | Y |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Are there any non dotted lines?

Ans:

4

-

100

93

No

17(534)

A graph of two people

Description automatically generated with medium confidence

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | Y | Y | Y |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Is there a single point where all the lines intersect?

Does the non dotted line intersect all the dotted lines?

Ans:

5

-

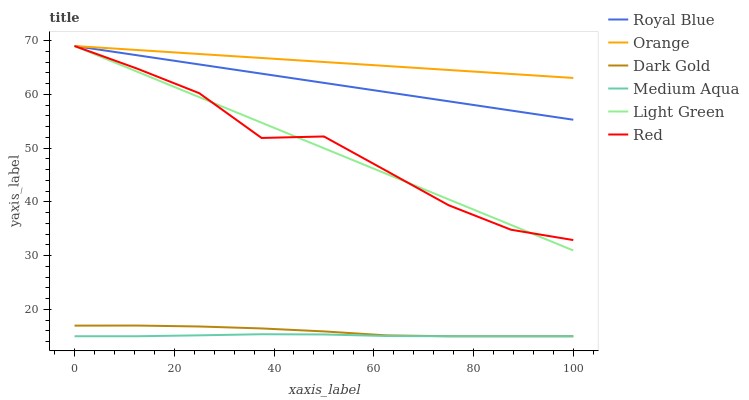
100

35

No

No

18(541)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y | Y |
| 5. | M |  |  |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

What is the maximum number of lines that intersect at a single point?

Ans:

6

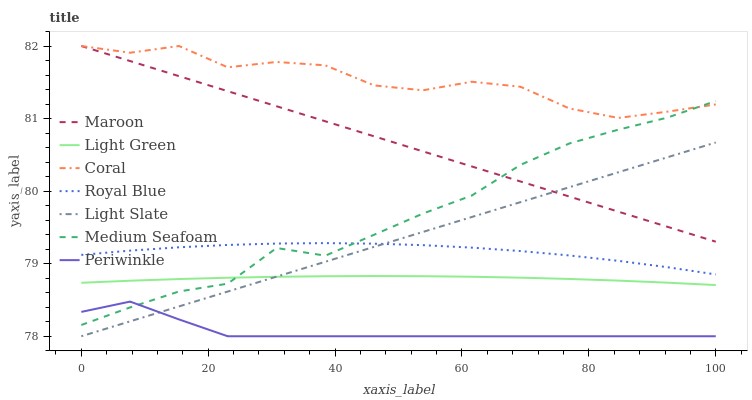
-

100

70

4

19(553)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. | Y | Y |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Do the lines with color Medium Seafoam and Light Slate intersect at any point?

Ans:

7

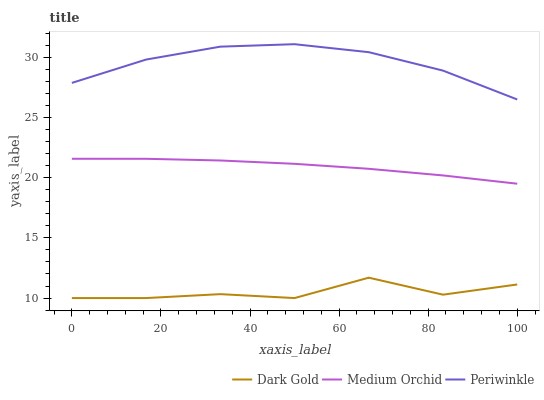
-

100

82

No

20(554)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  | Y |
| 5. | Y | Y |  |
| 6. |  |  |  |

How many lines?

What are their colors?

Max value in x axis?

Max value in y axis?

Is there an intersection point in the chart?

Ans:

3

-

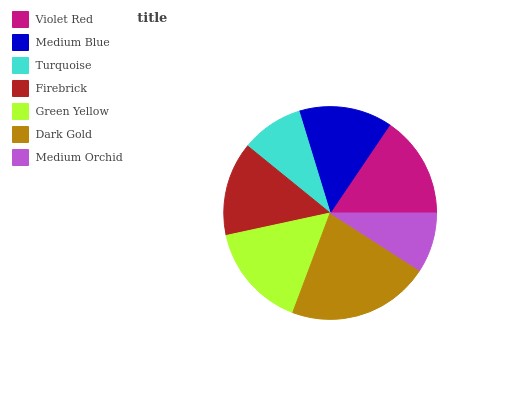
100

30

No

PIE CHART:

1(757)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y |  | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

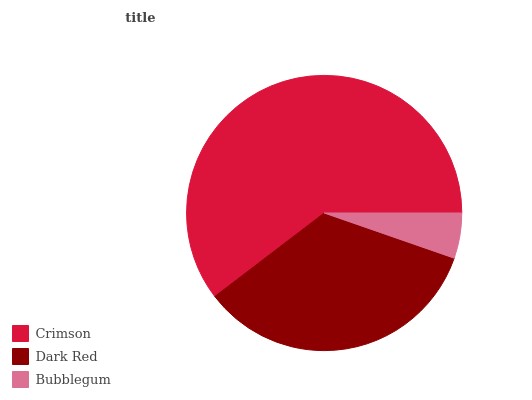
Ans:

7

-

Dark Gold

2(759)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  | Y |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Does the lower half of the pie look like a pyramid?

Ans:

3

-

Crimson

Yes

3(766)

A pie chart with different colors

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. |  | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y |  |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

7

-

Medium Seafoam

4(775)

A pie chart with different colored circles

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. |  | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y |  |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

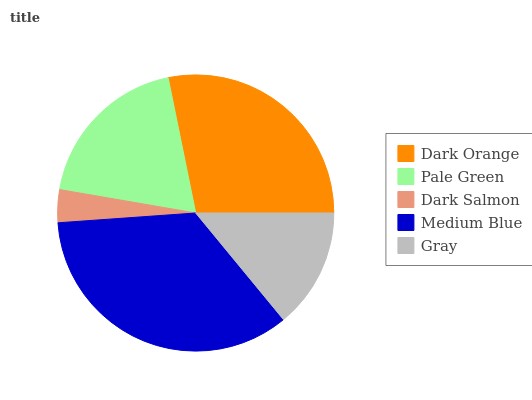
Ans:

7

-

Cyan

5(797)



|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y |  |
| 2. | Y | Y | Y |
| 3. |  | Y |  |
| 4. |  | Y |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Which colours surround the Gray Pie?

Ans:

7

-

Medium Blue

Dark Orange and Medium Blue

6(600)

A pie chart with a few different colored sections

Description automatically generated with medium confidence

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

3

-

Steel Blue

7(619)

A pie chart with different colors

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

7

-

Dark Salmon

8(638)

A pie chart with different colored circles

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y |  |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

4

-

Violet Red

9(644)

A pie chart with a few different colored sections

Description automatically generated with medium confidence

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

3

-

Saddle Brown

10(695)

A chart with a green and purple circle

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

2

-

Green Yellow

11(705)

A pie chart with a few different colored circles

Description automatically generated with medium confidence

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y |  |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

4

-

Khaki

12(708)

A pie chart with different colors

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | M | Y | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

6

-

Brown

13(713)

A green purple and blue pie chart

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

3

-

Dark Green

14(718)

A pie chart with different colored circles

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | M |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

5

-

Violet Red

15(719)

A pie chart with different colored circles

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | M |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

5

-

Dark Turquoise

16(722)

A pie chart with different colored circles

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

3

-

Orange

17(741)

A pie chart with different colored circles

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

3

-

Dark Orchid

18(710)

A pie chart with different colored circles

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y | Y |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

4

-

Pale Green

19(704)

A pie chart with a few different colored circles

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y | Y |  |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

3

-

Gold

20(696)

A colorful circle with text

Description automatically generated

|  |  |  |  |
| --- | --- | --- | --- |
|  | Gemini 1.5 pro | Gpt 4o | Claude Opus |
| 1. | Y | Y | Y |
| 2. | Y | Y | Y |
| 3. | Y |  |  |
| 4. |  |  |  |
| 5. |  |  |  |
| 6. |  |  |  |

How many pies are there?

What are their colors?

Which color pie has the most area?

Ans:

6

-

All same?

To determine which color has the maximum area under the curve from the data points in the scatter plot, we can observe the general trend of the points for each color.\n\n- \*\*Dark Magenta\*\*: Points generally increase but seem to cap around 90.\n- \*\*Sandy Brown\*\*: Points clearly have a steeper upward trend, reaching above 90.\n- \*\*Indian Red\*\*: Points have a more gradual increase relative to the other two and seem to cluster in the middle range.\n\nFrom visual observation:\n- The \*\*Sandy Brown\*\* points show a steeper and consistent upward trend compared to both Dark Magenta and Indian Red.\n- The \*\*Dark Magenta\*\* points, although starting with a high upward trend, do not maintain as high values across the entire x-axis as Sandy Brown.\n- The \*\*Indian Red\*\* points have the least steep trend.\n\nTherefore, \*\*Sandy Brown\*\* has the maximum area under the curve based on the visible trends in the scatter plot.'},

'The "roughness" of the Chartreuse series of data points isn\'t immediately clear from the graph, as "roughness" could refer to several characteristics such as variability or distribution. From the given graph, the Chartreuse points appear relatively consistent without a lot of fluctuation in their position, which suggests that they might not be the roughest in terms of variability. \n\nIf "roughness" refers to variability, then the Light Sky Blue data series, which shows a small downward trend, might be considered rougher since it does exhibit some variation. However, for statistical clarity, further analysis like calculating the standard deviation or visualizing a pattern in the changes is required.'

To determine if Turquoise has the minimum area under the curve, let's compare the other curves visually:\n\n- The Turquoise curve (dotted cyan) is above the Olive curve for most of the x-axis range.\n- Light Green and Turquoise lines intersect briefly but otherwise remain at different levels.\n- Periwinkle, Cornflower, and Medium Orchid lines are all positioned higher than the Turquoise curve for most of the graph, suggesting they cover a larger area.\n\nThe Olive curve (brown dashed line) is mostly lower than the Turquoise curve, indicating that Olive likely has a smaller area under the curve.\n\nTherefore, Turquoise does not have the minimum area under the curve; it appears to be the Olive curve with the minimal area under the curve