

# Math Discourse Activities: Grades 1–8

## Get Your Students Talking in Math Class!

Students love to talk, so let's put that to good use during math class. Engaging in mathematical discourse helps students better process, synthesize, and retain ideas leading to greater understanding.

The Math Discourse Cards in *Ready Texas Mathematics* can be used to help students ask questions, share solution strategies, and make connections. This packet contains a sample activity for Grades 1–8 that can be used with the *Ready Texas Mathematics Discourse Cards*.



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## Set Up

Provide access to manipulatives, visual models, and paper/pencil

## Activity

- Pose the question, "How many ways can you make 10?"
- Allow time for children to explore using manipulatives, models, and/or paper.
- After, invite a few to share their thoughts.
- Introduce the Purple Discourse Card and continue the conversation.
- Follow up each child's answer with the Blue Discourse Card.
- After two children have shared, introduce the Red Discourse Card. Ask students to use the sentence stem to share their thoughts.
- Last, pose the Green Discourse Card and continue the conversation.

## Discourse Card Examples

### Reflect and Connect

What math did you use in this problem that was **different from others** you have done?

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### Reason, Explain, and Critique

Do you see any **patterns**?

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### Sentence Starters

One thing I like about **my partner's strategy** is...

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### Make Sense of Problems and Persevere

What do **you think** about what another student said?

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# Subtract Two-Digit Numbers

Grade

2

## Set Up

Provide access to manipulatives, visual models, and paper/pencil

## Activity

- Pose the problem:
  - *Walsh Elementary is having a blanket drive for the local charity. Mr. Garcia's class has collected 28 blankets and Mr. Abbott's class has collected 54. How many more blankets does Mr. Abbott's class have?*
- Allow time for children to make sense of the problem and solve using manipulatives, models, and/or paper provided.
- Introduce the Purple Discourse Card and invite a few students to share.
- Follow up some answers with the Blue Discourse Card.
- After a few children have shared, introduce the Red Discourse Card. Ask students to use the sentence stem to share their thoughts.
- Last, pose the Green Discourse Card and continue the conversation.

## Discourse Card Examples

### Reflect and Connect

What **ideas** did you use to solve this problem?

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### Reason, Explain, and Critique

Is there **another way** to solve the problem?

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### Sentence Starters

The strategy that **makes the most sense** to me is...

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### Make Sense of Problems and Persevere

Would **another method** work as well or better?

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# Finding Equivalent Fractions

Grade

3

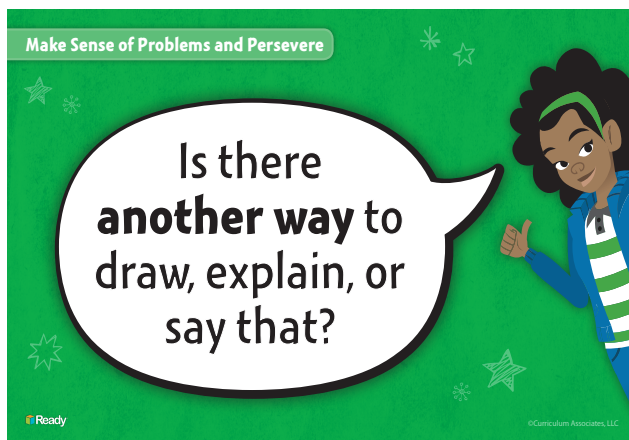
## Set Up

Provide access to manipulatives, visual models, and paper/pencil

## Activity

- Pose the problem:
  - *Juanita and Brynham each have an orange for snack. Juanita ate two-eighths of her orange and Brynham ate one-fourth of hers. Both oranges are the same size. Did they eat the same amount of orange? How do you know?*
- Allow time for children to make sense of the problem and solve using manipulatives, models, and/or paper provided.
- Introduce the Purple Discourse Card and invite a few students to share.
- Follow up some answers with the Blue Discourse Card.
- After a few children have shared, introduce the Red Discourse Card. Ask students to use the sentence stem to share their thoughts.
- Last, pose the Green Discourse Card and continue the conversation.

## Discourse Card Examples





# Multiplication as a Comparison

Grade

4

## Set Up

Provide access to manipulatives, visual models, and paper/pencil

## Activity

- Pose the problem:
  - *Ji is preparing for a party. The local party supplier has five party hats. Ji needs seven times that amount. How many hats does Ji need for her party?*
- Allow time for children to make sense of the problem and solve using manipulatives, models, and/or paper provided.
- Introduce the Purple Discourse Card and invite a few students to share.
- Follow up some answers with the Blue Discourse Card.
- After a few children have shared, introduce the Red Discourse Card. Ask students to use the sentence stem to share their thoughts.
- Last, pose the Green Discourse Card and continue the conversation.

## Discourse Card Examples

### Reflect and Connect

Is there a **real-life situation** where this could be used?

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### Reason, Explain, and Critique

How would your solution look if you used **another model**?

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### Sentence Starters

I **started** solving the problem by...

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### Make Sense of Problems and Persevere

Would **another method** work as well or better?

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# Fractions as Division

Grade

5

## Set Up

Provide access to manipulatives, visual models, and paper/pencil

## Activity

- Pose the problem:
  - *Monica, Shaunda, and Mike are decorating five floats for the homecoming parade. If they share the work equally, how much will each student decorate?*
- Allow time for children to make sense of the problem and solve using manipulatives, models, and/or paper provided.
- Introduce the Purple Discourse Card and invite a few students to share.
- Follow up some answers with the Blue Discourse Card.
- After a few children have shared, introduce the Red Discourse Card. Ask students to use the sentence stem to share their thoughts.
- Last, pose the Green Discourse Card and continue the conversation.

## Discourse Card Examples

### Reflect and Connect

Is there a **real-life situation** where this could be used?

Ready

### Reason, Explain, and Critique

How would your solution look if you used **another model**?

Ready

### Sentence Starters

**I started** solving the problem by...

Ready

### Make Sense of Problems and Persevere

Would **another method** work as well or better?

Ready



## Set Up

Provide access to manipulatives, visual models, and paper/pencil

## Activity

- Pose the problem:
  - Dawn earned \$97.50 for 10 hours of work. Amy earned \$120 for 12 hours of work. How much did each person earn per hour? How can you use this information to compare their earnings?
- Allow time for children to make sense of the problem and solve using manipulatives, models, and/or paper provided.
- Introduce the Purple Discourse Card and invite a few students to share.
- Follow up some answers with the Blue Discourse Card.
- After a few children have shared, introduce the Red Discourse Card. Ask students to use the sentence stem to share their thoughts.
- Last, pose the Green Discourse Card and continue the conversation.

## Discourse Card Examples

### Reflect and Connect

What is **different** about your strategy and your partner's?

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### Reason, Explain, and Critique

How did **you begin** to think about this problem?

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### Sentence Starters

The strategy that **makes the most sense** to me is...

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### Make Sense of Problems and Persevere

Can you **convince your partner or others** that your answer makes sense?

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# Rates and Proportions

Grade

7

## Set Up

Provide access to manipulatives, visual models, and paper/pencil

## Activity

- Pose the problem:
  - *Banners at the school store were on sale for \$3 off the regular price. Louis bought 4 banners on sale and paid a total of \$18. What is the regular price of a banner?*
- Allow time for children to make sense of the problem and solve using manipulatives, models, and/or paper provided.
- Introduce the Purple Discourse Card and invite a few students to share.
- Follow up some answers with the Blue Discourse Card.
- After a few children have shared, introduce the Red Discourse Card. Ask students to use the sentence stem to share their thoughts.
- Last, pose the Green Discourse Card and continue the conversation.

## Discourse Card Examples

### Reflect and Connect

Is there a **general rule** you could use?

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### Reason, Explain, and Critique

Can you **draw a picture or make a model** to show how to solve the problem?

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### Sentence Starters

The strategy that **makes the most sense** to me is...

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### Make Sense of Problems and Persevere

Can you **convince your partner or others** that your answer makes sense?

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# Comparing Functions

Grade  
8

## Set Up

Provide access to manipulatives, visual models, and paper/pencil

## Activity

- Pose the problem:
  - Roy wants to buy a new wireless phone for \$200. Two stores offer different payment options. Which plan has a greater initial value? Which phone will be paid for at a faster rate?



### Store B Payment Plan

Pay \$50 at the time of purchase. Pay \$20 per week until the phone is paid for.

- Allow time for children to make sense of the problem and solve using manipulatives, models, and/or paper provided.
- Introduce the Purple Discourse Card and invite a few students to share.
- Follow up some answers with the Blue Discourse Card.
- After a few children have shared, introduce the Red Discourse Card. Ask students to use the sentence stem to share their thoughts.
- Last, pose the Green Discourse Card and continue the conversation.

## Discourse Card Examples

### Reflect and Connect

What is **different** about your strategy and your partner's?

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### Reason, Explain, and Critique

Does that strategy **always** work?

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### Sentence Starters

The strategy that **makes** the most sense to me is...

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### Make Sense of Problems and Persevere

How could you help another student **without telling** them the answer?

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