1. Factor the following trinomial.

   $$x^2 - 5x - 50$$

   Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

   ○ A. $x^2 - 5x - 50 = \boxed{}$ (Type your answer in factored form.)

   ○ B. The polynomial is prime.

   ID: 5.6.7

2. Factor completely.

   $$10x^3 - x^2 - 2x$$

   Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

   ○ A. $10x^3 - x^2 - 2x = \boxed{}$

   ○ B. $10x^3 - x^2 - 2x$ is prime.

   ID: 5.6.69

3. Factor the following.

   $$x^2 - 22x + 121 - y^2$$

   Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

   ○ A. $x^2 - 22x + 121 - y^2 = \boxed{}$

   ○ B. $x^2 - 22x + 121 - y^2$ is prime.

   ID: 5.7.59

4. Factor the following.

$$250x^3 - 54y^3$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ A. $250x^3 - 54y^3 = \boxed{}$

○ B. The polynomial is prime.

ID: 5.7.37

5. Factor out the greatest common factor from the following polynomial.

$$30a^6b^6 - 40a^7b^7 + 40ab - 40a^7b$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

○ A. $30a^6b^6 - 40a^7b^7 + 40ab - 40a^7b = \boxed{}$

(Type your answer in factored form.)

○ B. The polynomial has no common factor other than 1.

ID: 5.5.15